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OXFORD

COUNTY BOROUGH OF ST. HELENS.



Annual Report

OF THE

Medical Officer of Health

FOR

THE YEARS 1942 and 1943

FRANK HAUXWELL, M.B., Ch.B., D.P.H.,

Medical Officer of Health
and School Medical Officer.

St. Helens:

WOOD, WESTWORTH & CO., LIMITED, PRINTERS AND STATIONERS,
HARDSHAW STREET.

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TO THE MAYOR, ALDERMEN AND COUNCILLORS OF THE
COUNTY BOROUGH OF ST. HELENS.

r. Mayor, Ladies and Gentlemen,

I beg to submit my Report on the health of St. Helens for the years 1942 and 1943. The Report for 1942 having been unavoidably delayed, opportunity taken of presenting one Report covering both years.

As a broad statement, it might be said that whereas the health of the borough during the year 1942 compared very favourably with the year 1941, the year 1943 was not so fortunate. The following statement shows some of the principal statistical rates during the past 5 years :

	1939	1940	1941	1942	1943
Birth rate per 1,000 of civilian population	17.3	18.0	18.6	17.7	19.8
Death rate per 1,000 of civilian population	11.6	13.4	11.4	10.6	13.0
Infant Mortality per 1,000 live births	79.5	78.2	71.2	64.7	72.5
Maternal Mortality per 1,000 total births	2.56	1.02	0.98	4.31	3.40
Tuberculosis Death Rate per 10,000 of civilian population	6.5	7.7	6.7	7.3	7.6

The Death Rate for the year 1942 (10.6 per 1,000 of the population) was the lowest, and the Infant Mortality for that year (64.7 per 1,000 births) was the second lowest of such rates ever recorded for St. Helens. For the year 1943, however, there were substantial increases in the mortality rates, the Death Rate rising to 13.0 per 1,000 of the population and the Infant Mortality to 72.5 per 1,000 births.

The increase in the Mortality Rates in 1943 was mainly due to increase in deaths from Bronchitis and Pneumonia, the number of deaths from these two causes being approximately double that of the previous year. This was especially so amongst the infants and those over 65 years of age and resulted from the spell of very severe weather in the early months of 1943.

The Birth Rate for 1942 (17.7 per 1,000 of the population) was also the second lowest recorded for St. Helens, but in 1943 there was a substantial increase in this rate to 19.8 per 1,000 of the population.

In regard to the prevalence of infectious diseases, the main feature in 1942 was a measles epidemic involving in all 3,066 known cases, but this epidemic was generally mild in character and only one death occurred. Other infections that year were approximately average in occurrence. In 1943 there was an increase in the number of cases of Scarlet Fever, but here again the type was mainly mild in character. The number of cases of Diphtheria in 1943 fell from 255 in 1942 to 120 in 1943—the latter figure being the lowest number of cases notified any year since 1932.

During 1943 there was a sharp rise in the incidence of Pulmonary Tuberculosis, though the incidence of the non-pulmonary form of the disease continued to decline. The number of pulmonary cases notified in 1943 was the highest since 1933.

There was also in 1943 a considerable increase in the number of cases of Venereal Disease dealt with at the Venereal Diseases Treatment Centre (from 59 cases in 1942 to 104 cases in 1943). Though small increases had occurred in these diseases in the previous war-time years, the year 1943 was the first year when the increase could be considered serious.

Despite the reduction of medical staff by one in May, 1943, there was no reduction during the years under review in the work of the Department as a whole. Details of the Department's many activities are given under appropriate sections of the Report. With the introduction of the Ministry of Health Scheme of Allowances for certain classes of patients suffering from Pulmonary Tuberculosis and the increasing importance given to rehabilitation of patients with tuberculosis, an opportunity was taken for the appointment of a Social Welfare Officer on the staff of the Department. The time of the Officer appointed is now fully employed in welfare work in the Tuberculosis Department and on the female side of the Venereal Diseases Treatment Centre. In the latter months of 1943, preliminary steps were also inaugurated in the development of schemes for dealing with the unmarried mother and her child, for increasing the number of maternity beds available at the Council's Maternity and Child Welfare Hospital, and for dealing with emergency maternity cases.

For the successful carrying on of the work of the Department I am indebted to the ever willing and cheerful assistance of every member of the staff, practically every one of whom was also spending long hours on duty in Civil Defence Service. I would also take this opportunity of thanking members of the Council for their help and kindly consideration and inspiration when times were difficult.

I have the honour to be,

Your obedient Servant,

FRANK HAUXWELL

January, 1945.

I.—GENERAL AND VITAL STATISTICS

	1942	1943
Area (Acres)	7,950	7,950
Estimated Civilian Population mid-year	101,500	99,410
Rateable Value	£488,817	£486,679
Product of a penny rate	£1,893	£1,885

STATISTICAL SUMMARY FOR 1942 :

	M.	F.	Total
Live Births :—Legitimate	899	817	1,716
Illegitimate	42	35	77
Totals	941	852	1,793

Birth Rate per 1,000 of the estimated civilian population 17.7

All Births :—M. 37, F. 24 ; Total : 61.

Rate per 1,000 total (live and still) births 32.9

Deaths :—M. 579, F. 494 ; Total : 1,073.

Crude Death Rate per 1,000 of the estimated civilian population 10.6

Number of women dying from diseases and accidents of pregnancy and childbirth :

	Deaths	Rate per 1,000 total (live and still) births
From sepsis	5	2.69
From other maternal causes	3	1.62
Totals	8	4.31

Deaths of infants under one year of age :—

	M.	F.	Total
Legitimate	55	51	106
Illegitimate	3	7	10
Totals	58	58	116

Death Rate of Infants under one year of age :—

All infants per 1,000 live births	64.7
Legitimate infants per 1,000 legitimate live births	61.8
Illegitimate infants per 1,000 illegitimate live births	129.9

Deaths from Measles (all ages)	6
„ Whooping Cough (all ages)	1
„ Diarrhoea (under 2 years of age)	13
„ Tuberculosis	74

STATISTICAL SUMMARY FOR 1943 :

	M.	F.	Total
Live Births :—Legitimate	972	919	1,891
Illegitimate	47	33	80
Totals	1,019	952	1,971

Birth Rate per 1,000 of the estimated civilian population 19.8

Still Births :—M. 51, F. 37 ; Total 88.

Rate per 1,000 total (live and still) births 42.7

Deaths :—M. 699, F. 590 ; Total 1,289.

Crude Death Rate per 1,000 of the estimated civilian population 130

Number of women dying from diseases and accidents of pregnancy and childbirth

	Deaths	Rate per 1,000 total (live and still) births
From sepsis	1	0.49
From other maternal causes	6	2.91
Totals	7	3.40

Deaths of infants under one year of age :—

	M.	F.	Total
Legitimate	74	58	132
Illegitimate	8	3	11
Totals	82	61	143

Death Rate of Infants under one year of age :—

All infants per 1,000 live births	72.5
Legitimate infants per 1,000 legitimate live births	69.8
Illegitimate infants per 1,000 illegitimate live births	137.5

Deaths from Measles (all ages)	—
„ Whooping Cough (all ages)	4
„ Diarrhoea (under 2 years of age)	16
„ Tuberculosis	76

POPULATION.—The Registrar General's estimate of population for mid-year 1943 shows a decrease of 3,340 as compared with the estimate for 1942 and a decrease of 7,190 from the estimate for 1939. This is attributed in great measure to the large movements of population that have occurred since the outbreak of war. It must be remembered, however, that a gradual decrease in population had been going on for several years prior to the war, despite the fact that in each of these years there had been an excess of births over deaths. The excess of births over deaths in 1942 was 720 and 682 in 1943.

BIRTHS.—The birth rate (17.7 per 1,000 of the estimated population) for 1942 was lower than for 1941 (18.6) and was the second lowest ever recorded for the borough. The birth rate for 1943 (19.8) showed considerable recovery and was the highest since the year 1932. The rate for England and Wales for 1942 was 15.8 and for 1943 16.5.

DEATHS.—The death rate of 10.6 per 1,000 of the population for 1942 was the lowest ever recorded for the borough. In 1943, however, the position was not so satisfactory, the death rate for that year being 13.0 per 1,000 of the population. This increase was mainly attributable to considerable increases that occurred in the number of deaths from Pneumonia and Bronchitis during 1943 as a result of the spell of severe weather in the early months of that year. The death rate for England and Wales as a whole for 1942 was 11.6 and for 1943 12.1.

Coroner's Inquests.—The number of deaths reported to the Coroner in 1942 was 123, but in 62 of these he was able without an inquest to issue a certificate attributing the death to natural causes. The number of deaths reported in 1943 was 112 and in 60 of these the Coroner certified natural causes.

Causes of Death.—Figures relating to the causes of, and ages at, death are given in Table 1.

Deaths from Tuberculosis.—Tuberculosis was the cause of 6.9% of all deaths that occurred during 1942, and of 5.9% in 1943. The ages at which these deaths occurred are shown in Table 1.

Malignant Diseases.—The deaths from these diseases during the past five years were as follows :—

AGE	1939	1940	1941	1942	1943
Under 1 year	—	—	—	—	—
1—5 years	—	—	—	1	—
5—15 „	—	—	—	—	—
15—45 „	9	11	7	6	16
45—65 „	58	62	66	66	57
65 and over	63	63	65	71	60
Totals	130	136	138	144	133
Percentage of the total deaths	10.50	9.79	11.8	13.42	10.32
Death rate per 1,000 of population	1.22	1.32	1.34	1.42	1.34
Death rate per 1,000 of population, England and Wales	1.67	1.72	1.77	1.83	1.90

There would appear to be no relationship between the incidence of malignant diseases and industrial processes in St. Helens.

There were no alterations in the treatment facilities during 1942 and 1943.

Infant Mortality.—During 1942 there were 116 deaths of infants under one year of age, corresponding to an infant mortality rate of 64.7 per 1,000 births. During 1943 there were 143 deaths and the infant mortality rate was 72.5. The rate for England and Wales for both years was 49.

Further reference to this subject is made in the Maternity and Child Welfare Section.

Table 1 A.
Causes of, and ages at, death during 1942.

Causes of Death	Sex	All Ages	0—1	1—	At Ages			
					5—	15—	45—	65—
All Causes	M F	579 494	58 58	13 16	14 4	62 85	175 114	257 217
Typhoid and parat. fevers	M F	— 1	— —	— —	— —	— 1	— —	— —
Cerebro-spinal fever	M F	3 —	1 —	— —	— —	2 —	— —	— —
Scarlet Fever	M F	— —	— —	— —	— —	— —	— —	— —
Whooping Cough	M F	— 1	— —	— 1	— —	— —	— —	— —
Diphtheria	M F	7 4	— —	4 4	3 —	— —	— —	— —
Tub. of resp. sys.	M F	37 22	— —	— —	1 —	17 20	16 1	3 1
Other forms of tuberculosis	M F	8 7	1 —	1 2	— —	5 5	1 —	— —
Syphilitic diseases	M F	4 1	— —	— —	— —	2 —	1 1	1 —
Influenza	M F	5 2	— —	— —	— —	1 1	1 1	3 —
Measles	M F	2 4	2 —	— 3	— 1	— —	— —	— —
Ac. polio-myel. and polio-enceph.	M F	— —	— —	— —	— —	— —	— —	— —
Ac. inf. enceph.	M F	2 1	— —	— —	— —	1 —	— —	1 1
Cancer of buc. cav and Oesoph. (M.), uterus (F.)	M F	6 4	— —	— —	— —	— —	2 2	4 2
Cancer of stomach and duodenum	M F	21 17	— —	— —	— —	2 —	9 9	10 8
Cancer of breast	M F	— 10	— —	— —	— —	— 2	— 5	— 3
Cancer of all other sites	M F	51 35	— —	1 —	— —	— 2	23 16	27 17
Diabetes	M F	4 13	— —	— —	— —	2 3	2 4	— 6
Intracranial vascular lesions	M F	42 43	— —	— —	— —	— —	12 12	30 31
Heart Disease	M F	140 111	— —	— —	— —	9 16	44 29	87 66
Other diseases of circ. system	M F	9 11	— —	— —	— —	— 1	1 2	8 8
Bronchitis	M F	40 22	2 2	1 —	— —	2 1	21 6	14 13
Pneumonia	M F	24 27	10 14	2 3	— 1	1 4	6 3	5 2
Other respiratory diseases	M F	11 5	1 —	1 —	— —	1 2	2 1	6 2
Ulcer of stomach or duodenum	M F	7 —	— —	— —	— —	2 —	4 —	1 —
Diarrhoea under 2 years	M F	8 5	8 5	— —	— —	— —	— —	— —
Appendicitis	M F	1 3	— —	— —	— —	— 2	— 1	1 —
Other digestive disorders	M F	11 17	— 3	— 1	1 1	1 1	3 5	6 6
Nephritis	M F	9 17	— —	— —	— —	— 3	4 4	5 10

Table 1 A—continued.

Causes of Death	Sex	All Ages	0—1	1—	At Ages		45—	65—
					5—	15—		
Puer. and post-abort. sepsis	M	—	—	—	—	—	—	—
	F	5	—	—	—	5	—	—
Other maternal causes	M	—	—	—	—	—	—	—
	F	3	—	—	—	3	—	—
Prem. birth	M	12	12	—	—	—	—	—
	F	13	13	—	—	—	—	—
Con. mal. birth inj. infant dis.	M	17	17	—	—	—	—	—
	F	14	14	—	—	—	—	—
Suicide	M	6	—	—	—	—	4	2
	F	4	—	—	—	3	—	1
Road traffic acc.	M	14	—	1	4	3	2	4
	F	2	—	—	1	1	—	—
Other violent causes	M	23	—	1	2	8	6	6
	F	8	—	1	—	1	—	6
All other causes	M	55	4	1	3	3	11	33
	F	62	7	1	—	8	12	34
Totals		1073	116	29	18	147	289	474

Table 1 B.

Causes of, and ages at, death during 1943.

Causes of Death	Sex	All Ages	0—1	1—	At Ages		45—	65—
					5—	15—		
All Causes	M	699	82	11	16	86	202	302
	F	590	61	21	13	85	117	293
Typhoid and parat. fevers	M	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—
Cerebro-spinal fever	M	2	—	1	1	—	—	—
	F	4	1	1	1	1	—	—
Scarlet Fever	M	1	—	—	—	1	—	—
	F	—	—	—	—	—	—	—
Whooping Cough	M	1	—	1	—	—	—	—
	F	3	—	3	—	—	—	—
Diphtheria	M	2	—	1	1	—	—	—
	F	4	—	3	1	—	—	—
Tub. of resp. sys.	M	43	—	—	—	23	14	6
	F	21	—	1	—	18	1	1
Other forms of tuberculosis	M	7	1	1	—	3	1	1
	F	5	—	2	1	—	1	1
Syphilitic diseases	M	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—
Influenza	M	25	4	—	—	3	11	7
	F	22	2	1	—	1	6	12
Measles	M	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—
Ac polio-myel. and polio-enceph.	M	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—
Ac. inf. enceph.	M	—	—	—	—	—	—	—
	F	2	—	—	—	2	—	—
Cancer of buc. cav and Oesoph. (M.), uterus (F.)	M	15	—	—	—	2	2	11
	F	12	—	—	—	4	5	3
Cancer of stomach and duodenum	M	15	—	—	—	2	10	3
	F	7	—	—	—	—	3	4
Cancer of breast	M	—	—	—	—	—	—	—
	F	12	—	—	—	2	4	6
Cancer of all other sites	M	44	—	—	—	4	21	19
	F	28	—	—	—	2	12	14

Table 1 B—continued.

Causes of Death	Sex	All Ages	0—1	1—	At Ages		45—	65—
Diabetes	M	3	—	—	—	1	—	2
	F	6	—	—	—	2	2	2
Intracranial vascular lesions	M	48	—	—	—	1	15	32
	F	61	—	—	—	3	16	42
Heart Disease	M	130	—	—	1	10	41	78
	F	123	—	—	1	12	26	84
Other diseases of circ. system	M	16	—	—	—	—	2	14
	F	16	—	—	—	2	3	11
Bronchitis	M	73	8	—	1	6	23	35
	F	47	3	2	—	3	9	30
Pneumonia	M	48	17	2	—	3	15	11
	F	53	18	3	2	10	6	14
Other respiratory diseases	M	10	—	—	—	1	6	3
	F	6	—	—	—	1	3	2
Ulcer of stomach or duodenum	M	3	—	—	—	1	1	1
	F	2	—	—	—	—	1	1
Diarrhoea under 2 years	M	14	13	1	—	—	—	—
	F	2	2	—	—	—	—	—
Appendicitis	M	2	—	—	1	—	1	—
	F	—	—	—	—	—	—	—
Other digestive disorders	M	13	—	—	3	2	2	6
	F	13	1	1	1	1	3	6
Nephritis	M	23	—	—	—	2	12	9
	F	10	—	—	—	2	5	3
Puer. and post-abort. sepsis	M	—	—	—	—	—	—	—
	F	1	—	—	—	1	—	—
Other maternal causes	M	—	—	—	—	—	—	—
	F	6	—	—	—	6	—	—
Prem. birth	M	15	15	—	—	—	—	—
	F	14	14	—	—	—	—	—
Con. mal. birth inj. infant dis.	M	22	21	1	—	—	—	—
	F	16	13	1	1	1	—	—
Suicide	M	3	—	—	—	2	1	—
	F	3	—	—	—	—	2	1
Road traffic acc.	M	11	—	1	3	4	1	2
	F	2	—	—	1	1	—	—
Other violent causes	M	24	—	2	2	8	10	2
	F	14	1	2	1	2	1	7
All other causes	M	86	3	—	3	7	13	60
	F	75	6	1	3	8	8	49
Totals		1289	143	32	29	171	319	595

II.—METEOROLOGY.

The total rainfall for 1942, as measured at the Victoria Park Observatory was 31.08 inches, and as recorded at the Ecclestone Hill Waterworks 31.42 inches. The corresponding figures for 1943 were 29.87 inches at Victoria Park and 31.81 inches at Ecclestone Hill.

The sunshine recorder at Victoria Park recorded 1,033 hours of sunshine in 1942 and 1,307½ hours in 1943. The greatest duration of sunshine on any one day in 1942 was 14½ hours on the 4th June, and in 1943 13 hours on the 17th July. There were 131 sunless days in 1942 and 102 in 1943.

Table 3.

Infectious Diseases.—Total number of cases notified, number of cases admitted to hospital, and the total deaths.

A—Year 1942

DISEASE	Notifications received	Cases admitted to hospital	Total Deaths
Smallpox	—	—	—
Scarlet Fever	146	134	—
Diphtheria	255	255	11
Measles	3066	13	6
Whooping Cough	423	1	1
Enteric Fever	1	1	1
Dysentery	69	—	—
Erysipelas	28	3	—
Pneumonia	60	2	51
Typhus Fever	—	—	—
Puerperal Pyrexia	7	6	1
Ophthalmia Neonatorum	4	—	—
Poliomyelitis	—	—	—
Encephalitis Lethargica	1	—	1
Cerebro-Spinal Fever	11	10	3
Malaria	1	—	—

B—Year 1943

DISEASE	Notifications received	Cases admitted to hospital	Total Deaths
Smallpox	—	—	—
Scarlet Fever	322	301	1
Diphtheria	120	120	6
Measles	269	6	—
Whooping Cough	616	7	4
Enteric Fever	—	—	—
Dysentery	11	—	—
Erysipelas	45	6	—
Pneumonia	111	3	101
Typhus Fever	—	—	—
Puerperal Pyrexia	11	5	1
Ophthalmia Neonatorum	7	2	—
Poliomyelitis	1	—	—
Encephalitis Lethargica	—	—	2
Cerebro-Spinal Fever	10	9	6
Malaria	—	—	—

SCARLET FEVER.—The number of cases notified during 1942 (146) was the lowest recorded over a period of at least 30 years. The disease was ill-defined in type and of low virulence ; no deaths occurring.

During 1943 there was a steady incidence in the number of cases and the number of notifications received (322) contrasted unfavourably with the low return (of 146) in the preceding year. The disease was generally moderate in type, but increased in incidence and severity towards the end of the year. Minor complications such as cervical adenitis occurred in many cases and rheumatic, muscular and joint sequelae were frequent in adults.

Table 4.

Age distribution of cases of Infectious Diseases notified.

A—Year 1942.

DISEASE	Notifications received	Under 1	1—	2—	3—	4—	5—	10—	15—	20—	35—	45—	65—
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	146	4	3	13	13	19	63	15	7	7	1	1	—
Diphtheria	255	2	3	14	17	21	93	63	14	22	2	4	—
Measles	3066	134	330	362	427	626	1134	43	6	4	—	—	—
Whooping Cough	423	35	59	49	67	76	129	6	1	1	—	—	—
Enteric Fever	1	—	—	—	—	—	—	—	—	1	—	—	—
Dysentery	69	—	—	—	—	—	—	—	1	13	12	36	7
Erysipelas	28	1	—	—	—	1	2	—	1	7	1	9	6
Pneumonia	60	5	4	4	4	—	5	3	3	12	7	10	3
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Pyrexia	7	—	—	—	—	—	—	—	—	7	—	—	—
Ophthalmia Neonatorum	4	4	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica	1	—	—	—	—	—	—	—	—	1	—	—	—
Cerebro-Spinal Fever	11	1	—	—	—	—	3	—	1	2	3	1	—
Malaria	1	—	—	—	—	—	—	—	—	1	—	—	—

B—Year 1943.

DISEASE	Notifications received.	Under 1	1—	2—	3—	4—	5—	10—	15—	20—	35—	45—	65—
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	322	7	14	28	36	31	136	54	6	7	3	—	—
Diphtheria	120	1	2	5	11	7	42	25	12	14	1	—	—
Measles	269	28	44	35	48	42	54	12	4	2	—	—	—
Whooping Cough	616	58	80	84	103	103	185	3	—	—	—	—	—
Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	11	—	—	—	—	—	—	—	3	2	3	3	—
Erysipelas	45	—	1	1	—	—	1	—	2	4	10	20	6
Pneumonia	111	18	6	5	5	6	16	7	8	12	5	19	4
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Pyrexia	11	—	—	—	—	—	—	—	—	7	4	—	—
Ophthalmia Neonatorum	7	7	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis	1	—	—	—	—	1	—	—	—	—	—	—	—
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Fever	10	2	1	—	1	—	1	1	1	1	2	—	—
Malaria	—	—	—	—	—	—	—	—	—	—	—	—	—

DIPHTHERIA.—During 1942 the incidence of diphtheria was relatively unchanged in comparison with the previous year (255 cases in 1942 as compared with 252 cases in 1941), but in 1943 there was a marked decrease to 120 cases. The latter figure is the lowest number of notifications recorded since 1932. Deaths attributable to this disease were 11 in 1942 and 6 in 1943. There were no deaths during either year in immunised children.

During both years the Immunisation Campaign was energetically pushed forward, but during 1942 the response was very disappointing. Intensification

of the campaign during 1943, with special attention to children aged 1 to 5 years, lead, however, to a very satisfactory increase in the number immunised. The following figures give the number of children immunised through the Health Department Services during the past 5 years.

<i>Year</i>	1939	1940	1941	1942	1943
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Number Immunised	708	789	7716	652	4331

It is estimated that at the end of 1943 58.7% of children in the borough under 5 years of age and 65.7% of those aged 5—15 years had been immunised.

ENTERIC FEVER.—During 1942 one case of typhoid fever occurred. The patient was admitted to and died in the Isolation Hospital. The most energetic measures of investigation failed to reveal the source of infection. No cases occurred during 1943.

MEASLES.—There was a considerable epidemic of measles during 1942. In July and August of that year the number of cases occurring commenced to rise and by the autumn the infection was widespread throughout the borough. Because of the favourable seasonal occurrence pulmonary complications were few and the mortality of the disease was low.

During the first 2 months of 1943 there was a fairly brisk occurrence of cases in continuation of the 1942 epidemic, but the total number of cases during that year was only 269.

WHOOPING COUGH.—During 1942, only 423 cases of whooping cough occurred. This was an improvement on the epidemic which had totalled 1,005 cases in 1941, and there was still more satisfaction in that the severity of the disease had abated, only one death occurring.

During 1943 the disease was generally prevalent during the first 6 months of the year, but there was no epidemic severity. In all 616 cases occurred during the year with 4 deaths.

PUERPERAL PYREXIA.—During 1942, 7 cases and during 1943 11 cases of puerperal pyrexia were notified.

OPHTHALMIA NEONATORUM.—4 cases were notified during 1942 and 7 cases in 1943. Recovery ensued in all cases with vision unimpaired.

CEREBRO SPINAL MENINGITIS.—During 1942 cases occurred sporadically throughout the year and varied in type. In all 11 cases were notified, of which 9 were admitted to the Isolation Hospital. Two of these were very severe in type and ended fatally. Of the remaining two cases notified, and not admitted to hospital, one terminated fatally at home and the other recovered in one of the local general hospitals.

During 1943, 10 cases were notified. 9 were admitted to the Isolation Hospital and 5 deaths occurred amongst these cases. The remaining one case from the total notified died at home.

ACUTE POLIOMYELITIS.—No cases of Acute Poliomyelitis (Infantile Paralysis) occurred in 1942, but one case was notified in 1943. Recovery in this

case was incomplete with residual leg paralysis. The patient, on discharge from the Isolation Hospital, was referred to the Orthopaedic Clinic for after-care treatment.

OTHER INFECTIOUS DISEASES.—The number of cases of Erysipelas notified during the years 1942 and 1943 was 28 and 45, respectively. Only a small proportion of cases of this disease are admitted to the Isolation Hospital. There were no deaths.

In 1942, 69 cases of dysentery were notified. All these occurred amongst the inmates of the County Mental Hospital, Rainhill. There were 11 notifications in 1943.

BOROUGH ISOLATION HOSPITAL.—Details of admissions and discharges to this hospital are shown in Table 6.

In addition to serving the area of St. Helens Borough, this hospital now admits, by arrangement, a small proportion of cases from the area of the Whiston, Huyton and Prescot Joint Hospital Board.

During 1943 one of the older pavilions at this hospital was renovated and converted from ward accommodation to cubicle accommodation. Each of the two large wards in this pavilion has been divided up by part solid and part glass six foot partitions on each side of the ward to form a series of cubicles. This has given very useful additional isolation facilities at the hospital. The number of available beds in the hospital now totals 104.

During both years 1942 and 1943 the number of cases admitted to the Isolation Hospital was smaller than any year since 1932, even though there has been practically no change during these years in the practice regarding admissions.

The out-patient facilities in the Cleansing Block for the treatment of scabies and the cleansing of verminously infested persons continued to be well utilised. During 1942, 1,357 cases of scabies were treated and 76 infested persons were cleansed—the corresponding figures for 1943 being 993 cases of scabies and 77 infested persons.

Table 6.
Peasley Cross Isolation Hospital.
Hospital Diagnoses of cases treated during :

A—1942

DISEASE	In hospital Jan. 1st, 1942	Admitted	Discharged	Died	In hospital Jan. 1st, 1943
Scarlet Fever	23	128	139	—	12
Diphtheria	52	201	200	10	43
Puerperal Pyrexia	—	7	6	1	—
Venereal Disease	—	—	—	—	—
Measles	—	22	19	1	2
Other Diseases	1	156	147	7	3
Mothers with sick babies	—	—	—	—	—
Babies with sick mothers	—	4	4	—	—
Total	76	518	515	19	60

B—1943

DISEASE	In hospital Jan. 1st, 1943	Admitted	Discharged	Died	In hospital Jan. 1st, 1944
Scarlet Fever	12	337	293	1	55
Diphtheria	43	79	110	6	6
Puerperal Pyrexia	—	3	3	—	—
Venereal Disease	—	—	—	—	—
Measles	2	8	10	—	—
Other Diseases	3	131	125	7	2
Mothers with sick babies	—	1	1	—	—
Babies with sick mothers	—	4	4	—	—
Total	60	563	546	14	63

AMBULANCE PROVISION.—The arrangements for ambulance provision and for the conveyance of bedding, etc., for disinfection remained as in previous years. During 1942, the total distance travelled was 30,739 miles, and in 1943, 31,617 miles.

IV.—LABORATORY WORK.

The majority of the routine bacteriological and pathological examinations are carried out by the medical staff at the Borough Laboratory at the Town Hall, but bloods for the Wasserman reaction and specimens of an unusual nature are examined at the City Laboratories, Liverpool. Table 7 shows the numbers of specimens dealt with during the years 1942 and 1943.

Table 7.

SPECIMENS	Number Received		Results			
			Positive		Negative	
	1942	1943	1942	1943	1942	1943
Swabs for Diphtheria	4629	2990	130	41	4499	2949
Sputa for Tuberculosis	1204	1371	451	495	753	876
Hairs for Ringworm	10	5	2	—	8	5
Blood for Wasserman Reaction	198	296	39	45	159	251
Films for Gonococci	231	455	41	59	190	396
Pus and other fluids and discharges for various organisms	60	53	13	22	47	31
Other Specimens	53	36	5	9	48	27
Total	6385	5206	681	671	5704	4535

Outfits for the collection of specimens of sputa, blood, throat swabs, etc., are supplied free of charge.

V.—TUBERCULOSIS.

INCIDENCE.—During 1942, 80 new cases of pulmonary and 25 of non-pulmonary tuberculosis were notified. In addition a further 8 new cases came to the

knowledge of the department from other sources, e.g., death returns, posthumous notifications and transfers from other areas, so that the total number of new cases for the year was 113, of which 87 were pulmonary and 26 non-pulmonary.

During 1943, 107 cases of pulmonary and 24 cases of non-pulmonary tuberculosis were notified, and 6 new cases of pulmonary and 2 of non-pulmonary tuberculosis were discovered from other sources, so that the total number of new cases for 1943 was 113 pulmonary and 26 non-pulmonary. At the end of 1943 there remained on the Tuberculosis Register 519 cases of pulmonary and 327 cases of non-pulmonary tuberculosis.

MORTALITY.—During 1942 the number of deaths from all forms of tuberculosis was 74, giving a tuberculosis death rate of 7.3 per 10,000 of the population. Of these deaths 59 were due to pulmonary and 15 to non-pulmonary tuberculosis.

During 1943 the deaths from all forms of tuberculosis numbered 76, giving a tuberculosis death rate of 7.6 per 10,000 of the population. Of these 64 were due to pulmonary and 12 to non-pulmonary tuberculosis.

Age grouping of the new cases and of the deaths that occurred during 1942 and 1943 is shown in Tables 8A and 8B. The number of cases notified and the number of deaths each year during the past 20 years is shown in Table 9.

Table 8A.

Particulars of new cases and of deaths during 1942.

Ages	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	Males	Females	Males	Females	Males	Females	Males	Females
Under 1 year	—	—	1	—	—	—	1	—
1 to 5 years	—	—	2	4	—	—	1	1
5 to 15 years	2	2	6	5	—	—	2	1
15 to 25 years	11	16	—	2	4	12	3	—
25 to 35 years	7	12	—	2	5	9	2	2
35 to 45 years	11	6	1	2	8	3	1	—
45 to 55 years	6	2	—	1	9	—	1	—
55 to 65 years	8	—	—	—	6	—	—	—
65 —	2	2	—	—	3	—	—	—
Totals	47	40	10	16	35	24	11	4

Table 8B.

Particulars of new cases and of deaths during 1943.

Ages	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	Males	Females	Males	Females	Males	Females	Males	Females
Under 1 year	—	—	—	—	—	—	1	—
1 to 5 years	—	—	2	2	—	1	1	2
5 to 15 years	—	12	3	1	—	—	—	1
15 to 25 years	15	—	3	7	3	5	—	—
25 to 35 years	18	5	1	2	7	10	1	—
35 to 45 years	19	3	4	—	13	3	2	—
45 to 55 years	14	3	—	—	2	1	—	—
55 to 65 years	19	—	1	—	13	—	1	1
65—	5	—	—	—	5	1	1	1
Totals	90	23	14	12	43	21	7	5

Table 9.

Number of cases notified and number of deaths each year,
1924 to 1943.

Year	No. of Primary notifications received.		Deaths		Death Rate per 10,000 of population	
	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary
1924	154	75	118	27	10.8	2.48
1925	141	88	97	25	8.8	2.28
1926	140	68	91	32	8.2	2.92
1927	129	61	74	22	6.5	1.95
1928	139	68	84	21	7.6	1.90
1929	130	50	91	24	8.3	2.2
1930	119	53	73	26	6.7	2.4
1931	110	67	103	17	9.5	1.6
1932	141	48	72	16	6.7	1.5
1933	107	60	79	11	7.3	1.0
1934	94	40	72	23	6.7	2.1
1935	83	31	65	9	6.0	0.8
1936	75	48	72	7	6.7	0.6
1937	87	46	60	15	5.6	1.4
1938	74	35	57	13	5.3	1.2
1939	57	39	49	21	4.6	1.9
1940	96	44	67	12	6.5	1.2
1941	81	33	46	23	4.5	2.2
1942	80	25	59	15	5.8	1.5
1943	107	24	64	12	6.4	1.2

Comparing the figures shown in Table 9, it will be seen there has been a sharp rise in the incidence of pulmonary tuberculosis during 1943 and also a rise in the number of deaths attributable to this form of the disease. This is no doubt due to factors of national application, namely, overwork, overstrain, irregular and hurried meals and defective ventilation arising from black-out conditions. I am unaware of any war-time factor that has local application only.

TUBERCULOSIS DISPENSARY.—A record of the work at or in connection with the Tuberculosis Dispensary during the last 5 years is shown in Table 10.

Included in the cases examined for the first time at the Dispensary there were in 1942, 48 cases and in 1943 41 cases referred as doubtful cases of tuberculosis by Medical Boards of the Ministry of Labour and National Service. In addition 1 radiological examination in 1942 and 3 in 1943 were carried out at the request of the Silicosis Board.

Home disinfection of premises and bedding was carried out in 624 instances during 1942 and in 424 instances during 1943.

The Government Scheme whereby certain cases of pulmonary tuberculosis are granted financial allowances was put into operation in October, 1943. By the end of that year 34 applications for maintenance and/or discretionary allowances and special payments had been granted, the total disbursed being £528/19/7. With the introduction of this Scheme, opportunity was taken to appoint a Social Welfare Worker in the Tuberculosis Department. In addition to duties in the administration of the Scheme of Allowances, this officer deals with the "welfare" of the family as a whole, and it is hoped will also be of great assistance in the rehabilitation of the patient after treatment.

Table 10.

Record of work at or in connection with the Tuberculosis Dispensary during the years 1939-1943.

	1939	1940	1941	1942	1943
1. Cases examined for the first time	232	279	257	299	397
2. New contacts examined for the first time	57	40	56	81	131
3. Cases transferred from other areas or returned after discharge from the Register	10	11	6	3	2
Total	299	330	319	383	530
4. Cases and contacts diagnosed to be tuberculous :					
Pulmonary—Adults	41	75	57	59	72
" Children	5	4	1	1	3
Non-pulmonary—Adults	9	12	8	10	9
" Children	19	18	14	14	13
Total	74	109	80	84	97
5. Contacts diagnosed to be tuberculous (<i>included in item 4</i>)	3	—	—	—	1
6. Removed from Dispensary Register as :—					
Non-tuberculous	221	240	181	285	361
Recovered	25	5	5	11	11
Dead (all causes)	49	51	53	54	40
Transferred to other areas or lost sight of	9	7	6	8	9
Total	304	303	245	358	421
7. "Recovered" cases restored to Register (<i>included in items 1 and 4</i>)	—	—	1	—	—
8. Cases on Dispensary Register on 31st December :—					
Diagnosis completed :					
Pulmonary—Adults	249	222	286	287	308
" Children	124	125	124	125	127
Non-Pulmonary—Adults	63	72	80	87	90
" Children	191	204	211	216	215
Diagnosis not completed :					
Adults	11	21	19	23	43
Children	11	32	30	37	37
Total	649	676	750	775	820
9. Pulmonary cases on Register on 31st December which were T.B. +	139	143	136	139	136
10. Consultations with medical practitioners (personal and other)	187	163	156	159	171
11. Sputum examinations	97	193	196	302	424
12. X-ray examinations	882	1326	1173	1254	1483
13. Home visits by Tuberculosis Officer	86	79	73	74	105
14. Home visits by Nurses or Health Visitors	1313	984	1231	1071	1151
15. Attendances at Dispensary	1327	1000	939	1111	1354

During 1943 a special Report (printed in the Appendix) was submitted to the Education Committee on the Miniature Radiography of School children and approval was obtained for the examination by this method of all school leavers. It has not yet been possible to put this Scheme into operation, but it is hoped to commence the work at an early date.

NON-PULMONARY TUBERCULOSIS.—Cases of bone and joint disease in children are treated under the Council's Orthopaedic Scheme. Details of these are given in the Orthopaedic Section of the report. Operative treatment for adult cases is provided as and when required.

The arrangements with the Liverpool Corporation for the treatment of cases of lupus at their heliotherapy clinic at the Belmont Road Institution were continued, and during each of the years 1942 and 1943 6 cases received light treatment at that institution with considerable benefit.

At the Cloughton Street Clinic, Ultra Violet Light therapy was applied in suitable cases, and in 1942, 19 cases of tuberculous adenitis, 2 cases of tuberculous skin affection and 3 of bone and joint disease made 228 attendances for this form of treatment. In 1943, 21 cases of tuberculous adenitis, 1 case of tuberculous skin affection and 3 bone and joint cases made 450 attendances. In addition, during 1942, 11 cases with discharging sinuses made 115 attendances for special dressings by the Tuberculosis Nurse—the corresponding figures for 1943 being 10 cases and 80 attendances.

DENTAL TREATMENT.—The arrangements for dental treatment were made as in previous years, and during 1942, 93 patients, and in 1943, 56 patients, were treated at Eccleston Hall Sanatorium, and treatment was provided for 9 dispensary cases in 1942 and 5 dispensary cases in 1943.

INSTITUTIONAL TREATMENT.—At the Council's Sanatorium at Eccleston Hall there is accommodation for 75 patients and practically all types of cases, except acute surgical cases, are dealt with at that institution.

During 1942, 99 patients were admitted to the Sanatorium, 68 were discharged and 20 died. The corresponding figures for 1943 were 73 admitted, 49 discharged and 18 deaths.

During 1942, 39 in-patients and 10 out-patients were undergoing collapse therapy in the form of artificial pneumothorax involving 28 inductions and 5 unsuccessfully attempted. Refills totalled 1,775, including 254 performed on out-patients.

During 1943 the corresponding figures were 44 in-patients and 14 out-patients with 22 inductions and 9 unsuccessfully attempted. Refills totalled 2,108 including 318 performed on out-patients.

During 1942, 19 patients, and in 1943 27 patients, received courses of injections of gold salts or calcium administered either intravenously or intramuscularly. All treatment is controlled by serial X-ray examination and blood sedimentation tests.

Thoracic surgery also continued to play an important part in treatment and the following cases were transferred temporarily to either the Royal Southern Hospital, Liverpool, or to one of the local hospitals for the operations indicated :—

	1942	1943
Thoracoplasty operations	1	2
Extra pleural pneumothorax	4	2
Thoracoscopy and division of adhesions	Nil	15
Phrenic nerve operations	2	6

The Sanatorium school provides education for child inmates able to attend, and bedside tuition is given to those medically fit to benefit therefrom.

In addition to accommodation at the Council's Eccleston Hall Sanatorium, early pulmonary cases are occasionally sent to the Liverpool Sanatorium, Delamere, and an average of 7 beds are kept in constant use at Liverpool Open-Air Hospital for Children for non-pulmonary cases.

VI.—VENEREAL DISEASES.

The following statement shows the number of cases dealt with at the Venereal Diseases Centre during the years 1942 and 1943 in comparison with the numbers in 1941 :—

	1941		1942		1943	
	M	F	M	F	M	F
1. No. of cases under treatment or observation on 1st January	10	40	8	25	18	52
2. No. of new cases (including cases previously removed from the register who returned for further observation or treatment)	40	73	59	87	104	148
3. No. of cases discharged after completion of treatment or transferred to other centres or ceased to attend	42	88	49	60	109	134
4. No. of cases remaining under treatment or observation on 31st December	8	25	18	52	13	66
5. No. of attendances :—						
(a) For consultation or treatment by Medical Officers	213	339	332	476	532	718
(b) For intermediate treatments	151	884	163	1166	155	1316

Table 11 shows the number of cases of definite venereal disease treated for the first time at the St. Helens Venereal Diseases Centre during each of the last ten years. This table excludes cases which had received treatment previously at other Centres and also cases removed from the register in previous years who returned for treatment or observation for the same infection. This Table might, therefore, be taken as showing the local incidence of these diseases.

Table 11.

Number of new cases of Venereal Diseases dealt with during 10 years, 1934 to 1943 :

Year	Syphilis		Soft Chancre		Gonorrhoea		Total
	M	F	M	F	M	F	
1934	6	6	2	—	39	17	70
1935	11	10	—	—	40	21	82
1936	14	4	—	—	33	15	66
1937	8	8	—	—	47	19	82
1938	5	7	—	—	36	13	61
1939	6	9	—	—	40	14	69
1940	2	10	1	—	14	7	34
1941	3	6	—	—	22	12	43
1942	11	7	—	—	28	13	59
1943	11	13	—	—	39	41	104

(NOTE.—The Table excludes cases known to have previously received treatment at other Centres for the same infection and cases removed from the register during a previous year which returned for treatment or observation for the same infection).

From the figures given it will be seen that though during the war years 1940, 1941 and 1942 there had been a gradual increase in the incidence of these diseases, the total incidence was less than during the pre-war years. During 1943, however, the position worsened considerably, especially amongst females, the number of cases of syphilis being nearly double the number in the previous year and cases of gonorrhoea more than three times greater.

With the appointment, in the latter part of 1943, of the Almoner and Social Welfare Worker under the Tuberculosis Scheme, opportunity was taken to arrange for part of that officer's time to be devoted to Venereal Diseases amongst females. To her are referred cases in need of help and guidance on the problems that arise, and it is part of her duties to contact defaulters with a view to completion of treatment. Her services have also been very valuable in persuading contacts to attend for examination and, where necessary, for treatment.

During 1943, Regulation 33B relating to the compulsory treatment of cases of Venereal Disease became effective. In no case discovered locally was it found necessary to put the Regulation into force, but by informal follow-up methods 5 known cases were brought under treatment during the year. Under the Regulations, 3 female cases were notified from other areas, but as only one Form 1 was received in respect of each case, compulsory action was not possible. Informal methods of contact were once again successful in bringing one of these cases under treatment.

VII.—NURSING ARRANGEMENTS, HOSPITALS, AND OTHER INSTITUTIONS AVAILABLE FOR THE DISTRICT.

No alterations occurred during the year in the general nursing arrangements or hospital facilities, and these remain as detailed in the Report for 1938.

VIII.—MATERNITY AND CHILD WELFARE.

NOTIFICATION OF BIRTHS.—Under Section 203 of the Public Health Act, 1936, 1,938 live births and 61 still births were notified during 1942. In respect of these, 1,864 notifications were received from midwives and 135 from doctors. The corresponding figures for 1943 were 2,090 live births and 85 still births, 2,027 notified by midwives and 148 by doctors.

The total number of live births registered as belonging to St. Helens was 1,793 in 1942 and 1,971 in 1943, giving a birth rate of 17.7 per 1,000 of the population for the year 1942 and 19.8 per 1,000 of the population in 1943. The corresponding rates over the past 5 years were respectively 18.6 in 1941, 18.0 in 1940, 17.3 in 1939, 18.2 in 1938 and 18.6 in 1937.

INFANT MORTALITY.—During 1942 the death occurred of 116 infants under the age of one year, giving an Infant Mortality Rate for that year of 64.7 per 1,000 live births. The number of infants who died under one year of age during 1943 was 143, giving an Infant Mortality Rate for that year of 72.5 per 1,000 births. The corresponding rates during the preceding five years were 87.7 in the year 1937, 69.7 in 1938, 79.5 in 1939, 78.2 in 1940 and 71.2 in 1941. The average for the five years, 1939-1943, was 73.2.

The principal causes of these deaths during 1942 and 1943 were :—

	1942	1943
Congenital debility and premature birth	25	29
Congenital malformations	31	34
Pneumonia	24	35
Bronchitis	4	11
Other Respiratory Diseases	1	—
Diarrhoea	13	15
Other digestive disorders	3	1
Measles	2	—
Influenza	—	6
Cerebro Spinal Meningitis	1	1
Tuberculosis	1	1
Other causes	11	10
	<hr/> 116 <hr/>	<hr/> 143 <hr/>

The above statement shows the very large numbers of these deaths due to congenital debility and premature birth, and to congenital malformations. During 1942, these causes together accounted for 48.2% of the infant deaths and in 1943, 44.0%. That such a high percentage of infant mortality is due to causes associated with or occurring during pregnancy itself emphasises the need for early and continuous ante-natal care and the best possible arrangements for the confinement.

The chief cause of the increase in infant mortality in 1943 was the increase in the number of deaths from pneumonia and bronchitis. For this the very severe weather in the early months of 1943 was no doubt to blame.

The Infant Mortality Rate for England and Wales for 1942 was 49 per 1,000 births and for 1943, 49. The rates for the 126 County Boroughs and Great Towns, including London, were 59 in 1942 and 58 in 1943.

STILL-BIRTHS.—61 Still-births were notified during 1942 and 85 in 1943. All still-births notified are investigated with regard to cause.

MATERNAL DEATHS.—During 1942, 8 deaths were registered as resulting from childbirth or diseases or accidents of pregnancy, giving a maternal mortality rate for that year of 4.31 per 1,000 live and still-births. 5 of these deaths were associated with Sepsis—2 following abortion, 1 following instrumental delivery, 1 after a normal labour and 1 from acute salpingitis with peritonitis.

In 1943, 7 maternal deaths occurred, giving a maternal mortality for that year of 3.40 per 1,000 live and still-births. In only one case in 1943 was the death attributable to Sepsis.

INFECTIOUS DISEASES IN MOTHERS AND CHILDREN :—

Puerperal Pyrexia.—7 cases of puerperal pyrexia were notified during 1942 and 11 cases in 1943. The final diagnoses of these cases were :—

	1942	1943
Generalised Peritonitis and Septicaemia	3	—
Localised Pelvic Infection	3	3
Septicaemia	—	2

Mastitis	1	3
Phlegmasia Alba Dolens	—	1
Paralytic Ileus following Caesarian Section	—	1
Influenza	—	1
	—	—
	7	11
	—	—

Of the 3 cases of Generalised Peritonitis in 1942, 2 followed abortion and 1 followed a difficult instrumental delivery. All proved fatal. All other cases notified that year recovered.

In 1943, 1 case of septicaemia developed after a difficult breech delivery and the other followed removal of an adherent placenta. All cases notified in 1943 recovered with the exception of the one which developed Paralytic Ileus after Caesarian Section.

Ophthalmia Neonatorum.—During 1942, 4 cases were notified and during 1943, 7 cases. All cases recovered with vision unimpaired.

Pemphigus.—10 cases occurred in 1942 in 5 midwives’ practices and in 1943 2 cases in 2 midwives’ practices.

Other Infectious Diseases.—The following table shows the number of cases of infectious diseases which occurred in children under 5 years of age, and the deaths resulting therefrom.

	Under 1 year				1—5 years			
	Cases		Deaths		Cases		Deaths	
	1942	1943	1942	1943	1942	1943	1942	1943
Scarlet Fever	4	7	—	—	48	109	—	—
Diphtheria	2	1	—	—	35	25	8	4
Measles	134	28	2	—	1745	169	3	—
Whooping Cough	35	58	—	—	251	370	1	4
Ophthalmia Neonatorum	4	7	—	—	—	—	—	—
Cerebro-Spinal Fever	1	2	1	1	—	2	—	2

Home Nursing and Hospital Arrangements.—By arrangements with the St. Helens and District Nursing Association, home nursing is provided in suitable cases, and for those requiring hospital treatment beds are available at the Isolation Hospital. During 1942, 5 cases of puerperal pyrexia, 13 cases of measles and 1 case of whooping cough were admitted to that hospital, and during 1943 5 cases of puerperal pyrexia, 8 cases of measles, 6 cases of whooping cough and 2 cases of ophthalmia neonatorum.

INSPECTION AND SUPERVISION OF MIDWIVES.—In each of the years 1942 and 1943, 23 midwives notified their intention to practise within the Borough. Of these 9 were in private practice and 14 were municipal midwives. In addition 9 midwives in 1942 and 8 midwives in 1943 were employed in the Council’s Maternity and Child Welfare Hospital and 5 midwives in 1942 and 6 midwives in 1943 in the Maternity Block of the St. Helens Hospital. Notifications were also received in respect of all these.

The supervision and inspection of midwives is carried out partly by Medical Officers and partly by the Inspector of Midwives. During 1942 a total of 115

visits for inspection and supervision of private midwives and 287 visits of inspection of municipal midwives were carried out. The corresponding figures for 1943 were 127 visits to private midwives and 284 to municipal midwives.

During 1942 the private and municipal midwives attended 824 cases as midwives and 352 cases as maternity nurses, and during 1943 they attended 999 cases as midwives and 352 as maternity nurses.

In their capacity as midwives they found it necessary to call medical practitioners to their assistance on 267 occasions (32.4% of the cases attended) in 1942, and on 247 occasions (24.7%) in 1943.

MUNICIPAL MIDWIFERY SERVICE.—The following table gives a summary of the work done by the staff of the Municipal Midwifery Service during the years 1942 and 1943 :—

	1942	1943
Number of cases attended :—		
as midwife	648	754
as maternity nurse	103	129
	751	883
Number of live births	709	833
Number of still births	15	27
Number of abortions	34	33
Number of cases in which midwife sent for		
Medical assistance	202(31.1%)	205(27.1%)
Supervisor's visits and inspections	287	284

HEALTH VISITING.—The following statement shows the visits paid by health visitors during the two years under review.

	1942	1943
To expectant mothers :—		
(a) first visits	448	503
(b) subsequent visits	926	830
To infants under one year :—		
(a) first visits	1674	1858
(b) subsequent visits	6874	6285
To children, aged one to five years	19961	18994
Total visits	29883	28470

MATERNITY AND NURSING HOMES.—During 1942 there were 3 private nursing homes registered in St. Helens with accommodation for 14 maternity cases, but during 1943 one of these homes closed down whilst another increased its accommodation, so that at the end of 1943 there were 2 nursing homes with accommodation for 15 maternity cases. The number of maternity cases delivered in these homes was 178 in 1942 and 216 in 1943.

In the maternity block of the St. Helens Hospital 368 cases were delivered in 1942 and 364 in 1943.

CHILD WELFARE CLINICS.—Clinics for children under 5 years of age are held at 11 sessions weekly at 6 centres. Towards the end of 1943 the special clinics of Toddlers only were discontinued at all Centres, except the Central Clinic,

as it was found that owing to claims of war-time activities many mothers could not spare the time to bring toddlers to these special sessions. Mothers were therefore encouraged to bring toddlers to the ordinary baby clinic sessions. Many did so but many other toddlers, being in attendance at either the Day Nursery or at one or other of the Day Nursery Classes, came under medical supervision through these agencies.

Table 12 shows the attendances at the various Maternity and Child Welfare Clinics during the years 1942 and 1943 in comparison with the year 1941.

Table 12.

Attendances at Maternity and Child Welfare Clinics.

	1941	1942	1943
Child Welfare Clinics.			
No. of children who attended for the first time during the year and who, on the date of their first attendance, were :—			
(i) under 1 year of age	1233	1705	1326
(ii) between the ages of 1 and 5 years	650	523	693
Percentage of notified births represented by the number of children who on the date of their first attendance were under 1 year of age	61.3	87.9	60.9
Number who attended and at the end of the year were—			
(i) under 1 year of age	1104	1028	1233
(ii) between the ages of 1 and 5 years	1680	1360	1726
No. of attendances by children—			
(i) under 1 year of age	10046	11743	12434
(ii) between the ages of 1 and 5 years	2713	1659	1933
Test-feeding Clinic.			
No. of nursing mothers who attended	37	—	—
No. of attendances	42	—	—
Ante-natal Clinics.			
No. of expectant mothers who attended	1106	1202	1315
No. of attendances by expectant mothers	5217	5653	6382
Percentage of total notified births (live and still) represented by the number of expectant mothers who attended either the Maternity and Child Welfare Centres or the Ante-natal Clinics	55.05	60.1	60.4
Gynaecological and Post-natal Clinic.			
No. of Mothers who attended	234	260	277
No. of attendances	566	614	553
Sunlight Clinic.			
No. of Children who attended.....	109	136	122
No. of attendances	1870	2569	2437
Toddlers' Clinics.			
No. of Toddlers who attended	690	220	183
No. of attendances	1579	1423	916

ANTE-NATAL CLINICS.—Special ante-natal clinics are held 6 times weekly at 5 centres. In 60.1% of the total notified (live and still) births during 1942 the mothers had attended one or other of these clinics. The corresponding percentage for 1943 was 60.4.

GYNAECOLOGICAL AND POST-NATAL CLINIC.—This clinic is held once a week at the Town Hall Centre and serves the double purpose of investigation of gynaecological conditions associated with pregnancy and as a clinic for post-natal supervision.

During 1942, 148 patients visited this clinic for post-natal examinations, and in 1943 the number of post-natal patients who attended was 176. Post-natal supervision is, however, also carried out at the Infant Welfare Clinics, and the total number of women who received special post-natal supervision was 433 in 1942 and 616 in 1943.

The number of gynaecological patients attending this clinic was 112 (446 attendances) in 1942 and 101 (377 attendances) in 1943.

At this clinic patients can also receive advice on Birth Control methods when such is desirable for medical reasons. The following statement indicates the number of patients to whom such advice was given and the reasons during the years 1942 and 1943 :—

	1942	1943
	—	—
Renal Disease	7	5
Cardiac Disease	7	3
Recurrent Toxaemia of pregnancy	—	3
Bronchitectasis	2	—
Diabetes Mellitus	1	—
Pernicious Anaemia.....	—	1
Cerebral Haemorrhage	—	1
	—	—
	17	13
	—	—

SUNLIGHT CLINIC.—To this clinic, which is held twice weekly, are referred weakly and debilitated children likely to benefit from ultra violet therapy. During 1942, 136 children made 2,569 attendances for irradiation, and during 1943 122 children made 2,437 attendances. Generally speaking, the results have been very good.

HOSPITAL ACCOMMODATION.—The accommodation at the Council's Maternity and Child Welfare Hospital is 20 beds for maternity cases and 32 cots for children under 5 years of age.

During 1942 the number of maternity cases dealt with was 545. This number included 19 cases in hospital on the 1st January and 50 expectant mothers admitted for ante-natal treatment. The number of deliveries during the year was 476, and in 98 of these medical assistance was sought by the midwife in attendance. There were 20 still-births and 11 infants died within 10 days of birth. 14 cases were admitted to the hospital after delivery.

During 1943 the number of cases dealt with was 577, including 18 in hospital on 1st January and 91 admitted for ante-natal treatment. The number of deliveries was 473 and in 81 of these medical assistance was necessary. There were 24 still-births and 8 infants died within 10 days of birth. 16 cases were admitted during 1943 after delivery.

The number of maternal deaths in this hospital was 4 in 1942 and 4 in 1943. The cause of death in each case was :—

1942. 1. Obstetric Shock due to complete Inversion.
 2. Influenzal Broncho-pneumonia.
 3. Eclampsia.
 4. Pulmonary Embolism.
1943. 1. Ante-partum Haemorrhage due to Toxaemia.
 2. Uraemic Coma—Chronic Nephritis aggravated by pregnancy.
 3. Pernicious Anaemia.
 4. Placenta Praevia.

On the children's side of the Hospital, 114 children under 5 years of age were admitted during 1942, which with 20 in hospital on the 1st January made a total of 134 dealt with during the year. 75 of these children were admitted for care and supervision whilst their mothers were in hospital, and the reasons for admission of the other cases were : Marasmus 20, Rickets 5, Debility 5, Cardiac Disease 3, Pyloric Stenosis 2, Prematurity 2, Otitis Media 1 and Jaundice 1.

In 1943 the number of children admitted was 94, making with 20 in-patients on 1st January, a total of 114. 74 children were admitted for care whilst their mothers were in hospital, and of the remaining 20 the reasons for admission were : Marasmus 8, Prematurity 5 and Rickets, Debility, etc., in the remainder.

WAR-TIME NURSERY.—During the years 1942 and 1943 the Corporation War-time Nursery, which was opened in Hall Street in March, 1941, was fully utilised. The average number on the register was 37 in 1942 and 35 in 1943, and the average daily attendance during these years was 20.2 and 20.3. Owing to the small number of mothers using the Nursery during the week-ends, it was decided in May, 1943, to close at mid-day on Saturdays and to keep the Nursery open only from 6-30 a.m. to 7 p.m. on Monday to Friday inclusive and to 1 p.m. on Saturdays. The average daily attendance in 1943, excluding Saturday and Sunday, was 26.3.

MILK FOR MOTHERS AND INFANTS.—With the continuance of the National Milk Scheme, the issue of dried milk through the Council's scheme for milk for mothers and infants was limited to special cases for whom the National Scheme was not altogether satisfactory.

During 1942, approximately 70 cwts. of dried milk were distributed through the Council's scheme, and of this 215 lbs. were issued free and 1,916 lbs. at less than cost price.

In 1943, approximately 119 cwts. were distributed, of which 148 lbs. were issued free and 1,669 lbs. at less than cost price.

MINOR AILMENTS AND DENTAL DEFECTS.—During 1942, 17 children received treatment for minor ailments and 176 mothers and 60 children received dental treatment at the Council's Clinics. During 1943, the number of children who received treatment for minor ailments was 36, and 193 mothers and 35 children received dental treatment.

CRIPPLED CHILDREN.—Crippling defects in children under 5 years of age are dealt with under the Council's Orthopaedic Scheme, which provides periodical supervision by the Consultant Orthopaedic Surgeon and the special Orthopaedic Nurse, and hospital treatment when required. A complete record of the work under the Orthopaedic Scheme is given in Tables 13 and 14.

From these Tables it will be seen that during 1942, 193 maternity and child welfare cases were dealt with, 4 cases being admitted to hospital for operation.

During 1943, 192 maternity and child welfare cases were dealt with under this Scheme and 1 admitted to hospital.

CHILD LIFE PROTECTION.—Particulars are given in the following statement of cases dealt with each year.

	1942	1943
	—	—
Number of persons on the Register receiving children for reward at end of year	11	6
Number of children :—		
(a) On the Register on 1st January	9	11
(b) Admitted to the Register during the year	4	2
(c) Removed from the Register during the year—		
(i) Left the Borough	—	2
(ii) Legally adopted	—	1
(iii) Returned to relatives	1	3
(iv) Over age	<u>1</u> 2	<u>1</u> 7
(d) Died during the year	—	—
(e) On the Register on 31st December	11	6

The children were inspected regularly by the Health Visitors, who are also Child Protection Visitors, and all were found to be well cared for and living under satisfactory conditions.

IX.—ORTHOPAEDICS.

The general arrangements for the carrying out of the work of the Orthopaedic Department remained as in previous years, and a summary of the work during the years 1942 and 1943 is given in Table 13. Table 14 shows the cases treated classified according to their defects.

Table 13.

Record of work under Orthopaedic Scheme during the years 1942 and 1943.

	Tuberculous Cases		Maternity and Child Welfare Cases		Non-tubercular School Children	
	1942	1943	1942	1943	1942	1943
Number of cases on the Register, 1st January	23	22	105	118	322	291
Number of new cases seen during the year	3	4	88	74	88	91
Number of old cases seen during the year	23	22	105	118	322	291
Number who attended for consultation only	—	—	—	—	—	—
Number discharged cured or improved	—	—	23	29	66	69
Number discharged showing no material improvement	—	—	—	—	—	—
Number ceased to attend, over age, etc.	4	7	32	21	73	72
Cases transferred to Education Account	—	—	20	21	20	21
Cases transferred to Tuberculosis Account	—	1	—	—	—	1
Number of cases remaining under treatment at end of the year	22	20	118	121	291	261
Attendances to see Orthopaedic Surgeon	50	51	264	329	571	604
Attendances for intermediate treatment	63	39	532	380	5081	4307
Visits to Homes by Orthopaedic Nurse	202	287	27	45	66	56
Cases treated in Royal Liverpool Children's Hospital : Myrtle Street	—	—	—	—	1	—
Heswall	—	—	4	1	9	3
Cases treated in Leasowe Open-Air Hospital for Children	9	9	—	—	—	—
Cases treated in Royal Southern Hospital	—	1	—	—	5	4
Cases treated in Maternity and Child Welfare Hospital	—	—	—	—	—	—
Cases treated in Eccleston Hall Sanatorium	5	6	—	—	—	—
Total number of days of Insitutional Treatment	4305	4397	472	46	1449	652

Table 14.

Defects treated under Orthopaedic Scheme during 1942 and 1943.

Defect	Tuberculous Cases		Maternity and Child Welfare Cases		Non-tubercular School Children	
	1942	1943	1942	1943	1942	1943
Infantile Paralysis	—	—	5	3	37	19
Other forms of Paralysis.....	—	—	11	7	25	24
Rickets	—	—	58	65	33	42
Congenital deformities	—	—	28	21	39	33
Acquired foot deformities	—	—	80	85	114	129
Traumatism	—	—	2	—	22	13
Perthes Disease	—	—	—	—	6	4
Arthritis	—	—	1	1	1	—
Osteomyelitis	—	—	—	—	3	3
Postural defects	—	—	2	5	115	104
Miscellaneous	—	—	6	5	7	6
Tuberculosis :						
(a) Spine	10	9	—	—	—	—
(b) Hip	11	10	—	—	—	—
(c) Knee	2	3	—	—	—	—
(d) Ankle	1	1	—	—	—	—
(e) Others	2	4	—	—	—	—
(f) Crippling due to old lesions	—	—	—	—	8	5
Total	26	27	193	192	410	382

X.—WELFARE OF THE BLIND.

There were 211 Blind Persons on the Blind Register for St. Helens on 1st January, 1942, and this number decreased by 1 to 210 during the year. During 1943 the number increased by 5 to 215. The following is an analysis of the cases on the register at the 31st December each year.

Age distribution :—		1942	1943
Age	0—4 years	—	—
	5—15 „	12	10
	16—20 „	4	6
	21—49 „	51	51
	50—69 „	81	84
	70— „	62	64
Total		210	215

Educational and occupational distribution :—

Infant	—	—
Education—At school	9	9
Not at school	3	1
	1942	1943
Employment—Employed (Workshops or Home Workers Scheme)	23	24
Employed (Working on own account)	8	9
Under training	1	5
Not training but trainable	2	2
Unemployable	164	165
Trained, but unemployed	—	—

All provision for the care and welfare of the local blind—with the exception of that of blind children under two years of age, and the education of children of school age and vocational training—is undertaken on behalf of the Corporation by the St. Helens and District Society for the Welfare of the Blind.

XI.—POOR LAW MEDICAL RELIEF.

By agreement with the Lancashire County Council, cases requiring institutional treatment are admitted to the County Hospital, Whiston, or to the Whiston Institution. During 1942, 652 patients were admitted to the Hospital and 114 to the Institution. For the year 1943 the corresponding figures were 770 admission to the Hospital and 272 to the Institution.

For outdoor medical relief the town is divided into five medical relief districts for each of which there is a part-time District Medical Officer. During the 12 months ending 31st March, 1943, 628 medical orders were issued and there was an average of 266 persons on the permanent medical relief list. During the 12 months ending 31st March, 1944, 487 medical orders were issued and 304 persons were on the permanent medical relief list. During the same periods the number of prescriptions completed by chemists in connection with the treatment of these cases was 6,788 and 6,410 respectively.

Dental cases are treated at the Council's Dental Clinic; and the following statement summarises the number of Public Assistance Committee cases dealt with at that Clinic during the years 1942 and 1943 :—

	1942	1943
Cases treated	70	65
Dentures supplied	21	23
Dentures repaired	8	4

Cases with eye diseases or defects are treated by the Ophthalmic Surgeon at either the St. Helens Hospital or the Providence Hospital.

XII.—INSPECTION AND SUPERVISION OF FOOD.

MEAT AND OTHER FOODS.—The municipal abattoir remains in sole use by the Ministry of Food, but the inspection and supervision of all meat at the abattoir continues to be carried out by the Corporation's Superintendent, who is a qualified meat inspector. Table 16 gives the result of such inspection.

Table 16.

CARCASSES INSPECTED AT PUBLIC ABATTOIR—YEARS 1942 AND 1943.

	Cattle excluding cows		Cows		Calves		Sheep and Lambs		Pigs	
	1942	1943	1942	1943	1942	1943	1942	1943	1942	1943
Number killed	982	1284	3872	3901	1610	2907	18628	11507	1073	980
Number inspected	982	1284	3872	3902*	1610	2907	18628	11511*	1073	982*
Condemned :—										
(a) All diseases except Tuberculosis :—										
(i) Whole carcasses condemned	1	1	27	27	29	66	18	5	10	8
(ii) Carcasses of which some part or organ was condemned	271	262	815	843	3	3	1361	1091	210	119
(iii) Percentage of number inspected affected with disease	27.7	20.4	21.7	22.2	1.9	2.3	7.4	9.5	20.5	12.9
(b) Tuberculosis :—										
(i) Whole carcasses condemned	4	4	114	137	3	4	—	—	1	6
(ii) Carcasses of which some part or organ was condemned	39	89	2159	1969	9	13	—	—	51	65
(iii) Percentage of the number inspected affected with tuberculosis	4.4	7.2	58.7	53.9	0.7	0.5	—	—	4.8	7.2

* Of these numbers one cow, four sheep and two pigs killed elsewhere were brought to the abattoir for inspection purposes.

In addition to the Public Abattoir there is one private slaughterhouse licensed in the Borough, but owing to the present operation of the scheme for the control of meat and livestock its use has been temporarily discontinued.

Licences under the Slaughter of Animals Act, 1933, were renewed in 1942 to 28 slaughtermen employed at the Public Abattoir and to 29 slaughtermen in 1943.

The number of premises registered under Section 127 of the St. Helens Corporation Act, 1933, for the preparation or manufacture of potted, pressed, pickled or preserved meat, fish or other food remained at 164 during both 1942 and 1943.

During 1942, 3,570 visits were made by Inspectors to shops, stalls and other places where food is prepared or stored, and in 150 instances minor offences against various Acts and Orders were discovered and 187 nuisances or defects found.

During 1943, 3,832 visits of inspection were made and 144 minor offences discovered and 117 nuisances or defects found.

The following are the total quantities of various classes of foodstuffs which were condemned at the abattoir or in shops, etc., owing to being diseased or unsound :—

	1942	1943
	lbs.	lbs.
Meat	209,806	218,407
Canned Goods	9,093	7,849
Fruit	517	230
Fish	646	865
Miscellaneous Foodstuffs	824½	1,407
Totals	220,886½	228,758

Two warnings for offences were given by the Health Committee to shopkeepers during 1943. The first offender was warned for exposing for sale food intended for, but unfit for, human consumption ; and the second for failure to take reasonable steps to prevent risk of contamination of food.

Public Health (Meat) Regulations, 1924.—During each of the years 1942 and 1943, 5 offences against these Regulations were found. These mainly referred to premises requiring whitewashing or with unsuitable receptacles for trimmings and refuse. In all instances the unsatisfactory conditions were remedied after service of notice.

Agricultural Produce (Grading and Marking) Acts, 1928-1931.—There are no premises in the Borough registered for the cold or chemical storage of eggs.

No infringements of the Agricultural Produce (Grading and Marking) (Eggs) Regulations, 1930, were found.

Merchandise Marks Act, 1926.—2,285 inspections were made during 1942 and 2,410 in 1943 for the purpose of ensuring that the requirements of Orders made under this Act, and dealing with the marking of imported foodstuffs, were being complied with. On 6 occasions in 1942 and 3 occasions in 1943 warnings were given regarding minor infringements.

MILK AND MILK PRODUCTS.

Milk and Dairies Orders and Regulations, 1926-1943.—The number of persons and premises on the register at the end of each year was :—

	1942	1943
Cowkeepers and wholesale and retail purveyors of milk	7	7
Cowkeepers and wholesale purveyors of milk	1	1
Cowkeepers and retail purveyors of milk	7	7
Purveyors of milk	327	321
Cowsheds and Dairies	56	54

During 1942 a total of 629 visits and during 1943 283 visits were paid by Sanitary Inspectors to these premises. During 1942 one offender was fined for filling and closing milk bottles in the street, and in 1943 in two instances milk producers were warned by the Health Committee for infringements of the Order, mainly relating to unsatisfactory conditions in cowsheds.

Milk (Special Designations) Regulations, 1936-1942.—The following licences were granted under these Regulations :—

	1942	1943
Licence authorising the use of the special designation “Tuberculin Tested” in respect of the establishment at which the milk is produced and bottled	1	1
Licences authorising the use of the special designation “Accredited” in respect of the establishment at which the milk is produced and bottled	5	5
Licences authorising the use of the special designation “Pasteurised” in respect of the establishment in which the process of pasteurising is carried on and in respect of any shop or other establishment from which the milk is sold	2	2
Licences authorising the use of the special designation “Tuberculin Tested” from an establishment (not being the establishment at which the milk is produced and bottled)	3	2
Licences authorising the use of the special designation “Pasteurised” in respect of establishments (not being establishments at which the process of Pasteurising is carried on)	9	9

Biological Examination of Milk.—In the routine examination of milk supplies 94 samples in 1942 and 72 in 1943 were examined by guinea-pig inoculation for the presence of tubercle bacilli. Positive evidence of tubercle bacilli was found in 3.2% of the samples in 1942 and 9.7% in 1943.

Bacteriological Examination of Milk.—In addition to examination for tubercle bacilli, frequent sampling is also carried out for testing the bacteriological cleanliness of milk by the methylene blue and B. Coli tests.

The following statement shows the number of samples examined each year by these methods, and the results :—

Designation of Milk	1942		1943	
	No. of samples examined.	Failed to comply with the appropriate test.	No. of samples examined	Failed to comply with the appropriate test
Tuberculin Tested	5	2	4	2
Accredited	14	5	16	2
Pasteurised	29	1	26	6

In addition 12 samples in 1942 and 4 samples in 1943 of ungraded milk from accredited milk producers were examined. In 1942, 6 (50.0%) failed to reach accredited milk standard, and in 1943, 1 (25%) failed to reach that standard.

Examination of Milk for the Presence of Phosphatase.—Three samples were examined during 1942 for the presence of phosphatase, and two in 1943. In one sample in 1942 the Analyst reported that the milk had not been properly pasteurised.

Milk-in-Schools Scheme.—All milk supplied to schools is carefully supervised by the Sanitary Staff and frequent samples are taken for chemical analysis and for examination for bacterial contamination. The results of these examinations were as follows :—

	1942	1943
1. Samples taken for chemical analysis	305	297
Number reported below standard	—	—
2. Samples examined for bacteriological cleanliness	38	33
Number reported to be unsatisfactory	13	8
3. Samples examined for the presence of tubercle bacilli	19	16
Number in which tubercle bacilli was found	1	1

Ice Cream Premises.—The following are the particulars at the end of each year of registrations under the St. Helens Corporation Act, 1933, of manufacturers and vendors of Ice Cream and the premises used by them :—

	1942	1943
Manufacturers and Vendors	31	31
Vendors only	110	110
Premises for manufacture and sale	31	31
Premises for sale only	110	110

A total of 88 visits of inspection were made during 1942 and 3 samples were taken for bacteriological examination during that year. Of these only 1 could be considered to have equalled the standard set for accredited milk as regards general bacterial content. The remaining 2 samples contained coliform bacilli in 1/100th millilitre.

Owing to the restrictions placed on the sale of ice cream no visits of inspection were made during 1943.

FOOD AND DRUGS.

Food and Drugs Act, 1938.—During 1942, 299 formal samples and 104 informal samples of various foods and drugs were submitted to the Public Analyst and 20 (4.9%) were reported to be adulterated. In 1943, 229 formal samples and 114 informal samples were taken for analysis and 23 (6.7%) reported as adulterated.

The percentage of milk samples reported as adulterated during these years was 2.6% in 1942 and 5.8% in 1943.

In addition to the above, 239 samples of various cake and flour mixtures were examined by the Public Analyst in 1943 for the presence of mites (*Tyroglyphus Farinae*). Of these 54 (22.5%) were found to be infested. In each case the infested foodstuffs were surrendered to the Department as unfit for human consumption.

The appended statement shows the results of legal proceedings taken in cases of adulterated samples.

Year 1942.

<i>Sample No.</i>	<i>Article.</i>	<i>Adulteration and result of proceedings.</i>
1125	Egg Substitute	Consisted of solution of Gum Tragacanth containing 95% water. Proceedings under the Merchandise Marks Act, 1887. Wholesaler fined £50 with £1/13/6 costs, and retailer fined £2.

<i>Sample No.</i>	<i>Article.</i>	<i>Adulteration and result of proceedings.</i>
1131	Egg Substitute	Consisted of a coloured baking powder containing 1% available gas. Proceedings under Food and Drugs Act, 1938. Manufacturer fined £5 with £1/13/6 costs, and retailer fined £1 with £1/13/6 costs.
1531	Egg Powder Substitute	Consisted of a coloured baking powder containing 2.86% available gas. Case dismissed owing to faulty information.
1654	Home Made Lemon Cheese	Consisted of margarine, starch and water flavoured with lemon essence and tartaric acid. Proceedings under Food and Drugs Act, 1938. Manufacturer fined £2 with £1/18/6 costs.
Year 1943.		
2	Sweetened Custard Powder	Consisted entirely of coloured wheat flour sweetened with saccharine. Wholesaler fined £5 with £1/13/6 costs.
11	Blanc Mange Powder	Consisted entirely of coloured wheat flour. Wholesaler fined £10 and 16/9 costs. Vendor fined £1 and 16/9 costs.
101	Browning	Consisted of a solution of black analine dye. Case dismissed. Distributor successfully pleaded warranty.
113	Sponge Cake Mixture (fully sweetened)	Consisted of self-raising flour artificially coloured and containing a trace of saccharine. Case against vendors dismissed. Manufacturer fined £25 with £6/18/6 costs.
124	Milk	Contained not less than 11.3% of extraneous water. Case against vendor dismissed. Producer fined £5 with £3/2/6 costs.
145	Milk	Contained not less than 3.5% of extraneous water. Vendor found guilty. Case dismissed under Probation of Offenders Act on payment of £1/13/6 costs.

In 10 other instances in 1942 and in 12 in 1943 the vendors were warned by the Health Committee.

Fertilisers and Feeding Stuffs Act, 1926.—10 informal samples of fertilisers and feeding stuffs were taken and analysed during 1942 and 6 informal samples during 1943 and all were found to be genuine. No infringements in respect of labelling were found.

Pharmacy and Poisons Act, 1933.—At the end of 1942 there were 26 persons entered in the Local Authority's list of persons entitled to sell poisons

included in Part II of the Poisons List. The number of premises concerned was 50. At the end of 1943 the number of persons was 26 and premises again numbered 50.

A total of 96 visits were paid to these premises in 1942 and 90 visits in 1943. No infringements of the Act were found.

Pharmacy and Medicines Act, 1941.—No infringements of this Act were found.

BAKEHOUSES.—In 1942 there were 101 bakehouses in St. Helens with mechanical power employed in 53 of them. In 1943 the number of bakehouses was 102 with mechanical power in 59 instances.

During 1942, 372 visits of inspection were made and 27 sanitary defects found. In 26 of these the defect was remedied before the end of the year.

During 1943 visits of inspection numbered 318 with 41 defects found, of which 31 were remedied before the end of the year.

DISEASES OF ANIMALS ACTS—Tuberculosis Order, 1938.—During 1942 no animals from dairy herds in the Borough were slaughtered under this Order, but 5 animals were slaughtered in 1943.

Anthrax.—2 cases in 1942 and 4 cases in 1943 of suspected Anthrax were reported, but in no instance was the disease confirmed.

Swine Fever.—15 cases in 1942 and 13 cases in 1943 of suspected Swine Fever were reported. In no instance was the disease confirmed.

Markets, Sales and Lairs Order, 1925.—There are two markets licensed for the sale of animals in St. Helens, but one of these has not been used for many years. The one in use is situate between 5 and 21 Parr Street.

XIII.—SANITARY CIRCUMSTANCES OF THE AREA.

WATER.—The quality of the water has remained satisfactory, and the supply to all parts of the Borough reasonably adequate. All water in use for domestic purposes in St. Helens is now chlorinated.

The supply is on the constant system. With only one or two exceptions which receive their supplies from stand-pipes, water is supplied directly to all the houses in the Borough from the Corporation's water mains.

RIVERS AND STREAMS.—The supervision of the pollution of rivers and streams in St. Helens is now carried out by the Lancashire Rivers Board.

DRAINAGE AND SEWERAGE.—There have been no important extensions of sewers during the two years under review.

CLOSET ACCOMMODATION.—No pail closets or privy middens were converted to the fresh water carriage system during either 1942 or 1943. It is estimated that there are still 105 pail closets and 282 privy middens serving 104 and 291 houses, respectively. There are also 43 pail closets and 4 privy middens at various schools and works.

PUBLIC CLEANSING.—The removal and disposal of house refuse is carried out by the Borough Engineer's Department. All refuse other than salvage is disposed of by tipping. The only tip at present in use is the Kurtz Tip, but arrangements have recently been made for the use of a new site in Watery Lane. It is anticipated that most of the Borough's refuse will be disposed of on this new site when it comes into use.

SANITARY INSPECTION OF THE AREA.—The total number of visits made by the Sanitary Inspectors was 25,441 in 1942 and 25,976 in 1943. The nature and purpose of these visits is shown in Table 18.

Table 18.

Number and nature of inspections during 1942 and 1943.

	1942	1943
a) Number of Complaints Investigated :—		
1. Housing Defects	865	939
2. Choked and Defective Drains	517	611
3. Emissions of Smoke	—	2
4. Accumulations of Offensive Matter	—	8
5. Miscellaneous	220	244
b) Inspections re Sanitation and Food Supply :—		
Dwellinghouses inspected	1219	2014
Common Lodging Houses	217	82
Houses-let-in-Lodgings	107	58
Common yards, back roads and passages	631	1096
Horse Manure Middensteads	339	352
Fried Fish Shops	246	267
Fishmongers' and Greengrocers' Shops	723	491
Butchers' Shops	610	548
Grocers' Shops	952	1371
Ice Cream Premises	88	—
Shops Act, 1934	58	122
Public Houses, Beer Houses, etc.	67	445
Pharmacy and Poisons Act, 1933	96	90
Factories (with mechanical power)	533	352
Factories (without mechanical power)	261	94
Bakehouses	372	318
Offensive Trades	162	64
Food Preparing and Storing Places	350	328
Places of Public Entertainment	146	90
Tents, Vans and Sheds	5	406
Dairies, Cowsheds and Milkshops	629	283
Testing Drains	292	130
Ashes Receptacles	105	93
Samples of milk and other foodstuffs for chemical analysis	724	640
Samples of milk for bacteriological and biological examination	160	124
Samples of water procured for bacteriological examination	11	12
Samples of foodstuffs for examination for mite infestation	—	239
Enquiries re Brokers' Licences	5	11
Visits to Works in Progress	11052	10311
Rats and Mice (Destruction) Act, 1919	199	278
Infestation Order, 1943—Survey of Borough for Rat and Mouse Infestations	—	2686
Pigstyes.....	176	222
Miscellaneous visits	2743	1475
Additional visits arising out of the present emergency	2163	884
	<hr/> 25441	<hr/> 25976

Arising out of these visits in 1942, 3,710 preliminary notices and 1,660 statutory notices were served and in 2,747 instances these had been complied with before the end of the year. In addition, 582 defects found were reported to other departments of the Corporation for attention. Further, of the 517 complaints of choked drains made to the Sanitary Department, 433 were freed from obstruction by a member of the Staff of that Department, thus obviating the necessity of serving notices upon the owners.

During 1943 the corresponding figures were 4,050 preliminary notices and 3,208 statutory notices served and 2,960 complied with before the end of the year. 637 defects were referred to other Corporation departments and of 611 choked drains reported 411 were freed by a member of the Sanitary Department.

There were no prosecutions in 1942 for failure to comply with statutory

notices, but in 1943 legal proceedings were instituted against one property owner for failure to comply with a notice to open and cleanse a choked drain. A fine of £1 was imposed.

SMOKE ABATEMENT.—As in previous war-time years observations on atmospheric pollution were confined to analysis of the rainwater collected in the deposit gauge situate in the yard of the School Clinic, Claughton Street.

FACTORIES.—During 1942 one defect was reported by H.M. Inspector of Factories, but as the result of inspections by the Sanitary Department 53 instances of want of cleanliness and 47 instances of unsuitable or defective sanitary conveniences were dealt with.

During 1943 one defect was reported by H.M. Inspector of Factories, and in addition 15 instances of want of cleanliness and 38 instances of unsuitable or defective sanitary conveniences were dealt with as a result of sanitary inspections.

Legal proceedings were instituted during 1943 against the occupier of a factory for failure to maintain the factory in a clean condition. A fine of £2 was imposed.

PREMISES AND OCCUPATIONS CONTROLLED BY BYELAWS OR REGULATIONS.

Offensive Trades.—There are 4 offensive trades in the Borough, comprising 3 tripe boilers and 1 rag and bone dealer. During 1942, 162 visits and during 1943, 64 visits were paid to premises of this nature.

Tents, Vans, Sheds, etc.—So far as was known to the Department there were no tents, vans or sheds used in the Borough for human habitation during the years 1942 and 1943.

There are no sites in St. Helens used as camping sites, nor have any licences been granted by the Council authorising the use of any land or moveable dwellings for camping purposes.

Houses-let-in-Lodgings.—During 1942 and 1943 there were 5 premises known to the Department to be used as Houses-let-in-Lodgings. 107 visits in 1942 and 58 visits in 1943 were paid to these premises.

Common Lodging Houses.—The number of premises registered each year was 5, and 217 visits of inspection were made in 1942 and 82 visits in 1943.

During 1943 legal proceedings were taken against the keeper of one of these houses for various infringements of the Byelaws relating to Common Lodging Houses, and fines totalling £8/10/0 were imposed. This house was subsequently closed by the keeper.

Byelaws with respect to Nuisances.—These byelaws prove very effective for the control of pig-keeping. At the end of 1942 there were 31 persons known to be engaged in the keeping of pigs, and this increased to 55 by the end of 1943.

OTHER SANITARY CONDITIONS—Rats and Mice (Destruction) Act, 1919.—39 complaints of infestation of premises by rats were received in 1942. As in previous years it was found that the chief cause of infestation was either defective drains or sewers. When these defects were made good, no further complaints were received.

In accordance with a direction dated 30th June, 1943, made by the Minister of Food under the Infestation Order, 1943, a survey of the Borough was undertaken during that year for the purpose of ascertaining the extent of rat and mouse infestation. In the course of that survey a total of 2,686 inspections were made by

the Sanitary Staff and the following is a summary of the extent of the infestation revealed :—

Rat Infestations.

(a) No. of major primary infestations	.....	25	
(b) No. of minor secondary infestations	.....	134	159
		<hr/>	<hr/>

Mouse Infestations.

(a) No. of major primary infestations	.....	2	
(b) No. of minor secondary infestations	.....	70	72
		<hr/>	<hr/>

After the completion of the survey complaints by the public and additional inspections by the Sanitary Staff revealed 58 additional rat infestations and 12 additional mouse infestations, making the totals of 217 and 84, respectively.

A further direction was received from the Minister in November, 1943, requiring the Council to proceed with all necessary action for the remedying of infestation by rats and mice on land in the Borough. This work was commenced early in the following year.

Shops Act, 1934.—In connection with their duties under this Act, the Sanitary Staff paid 58 visits in 1942 and 122 visits in 1943 to various shop premises.

Places of Public Entertainment.—146 visits were paid in 1942 and 90 visits in 1943 for inspection purposes. The condition of these premises was found to be generally satisfactory.

Canal Boats.—There is only one canal within the Borough (the St. Helens Canal) and this has not been used for traffic for a number of years.

Mortuaries.—A public mortuary with post-mortem room is maintained behind the Town Hall, and is under the supervision of the Medical Officer of Health. During 1942, 64 bodies were received into the mortuary, and 30 post-mortem examinations conducted. During 1943, 55 bodies were received into the mortuary and 28 post-mortem examinations conducted.

Disposal of the Dead.—There were no alterations from previous years in these arrangements.

Swimming Baths.—Indoor swimming baths situate in Boundary Road are maintained by the Corporation. There are two plunge baths, and the method of purification of the water is by means of continuous filtration and chlorination. Four samples of water from these baths were taken by the Sanitary Department for bacteriological examination during 1942 and six samples during 1943. The results of the examinations showed the water to be satisfactory for bathing purposes.

Rag Flock Acts, 1911 and 1918.—Three samples of rag flock were taken in 1943. One sample was found not to conform with the standard prescribed by the Rag Flock Regulations, 1912, and on legal proceedings being instituted a fine of £3 with £1/13/6 costs was imposed.

XIV.—HOUSING.

A statement as to the number of houses erected in St. Helens during the years of 1942 and 1943, together with a summary of the work of the Health Department, in regard to housing, is given in Table 20.

Table 20.

Housing.

	1942	1943
Number of new houses erected during the year	Nil	Nil

1.—Inspection of dwelling-houses during the year :—

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	1219	2014
(b) Number of inspections made for the purpose	11052	12325
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	Nil	Nil
(b) Number of inspections made for the purpose	Nil	Nil
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	Nil	Nil
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	1211	2005

2.—Remedy of defects during the year without service of formal notices :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	596	1521
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3.—Action under statutory powers during the year :—

A.—Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936	Nil	Nil
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B.—Proceedings under Public Health Acts :—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	569	409
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—		
(a) By owners	469	297
(b) By Local Authority in defaults of owners	4	1

C.—Proceedings under Sections 11 and 13 of the Housing Acts, 1936	Nil	Nil
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D.—Proceedings under Section 12 of the Housing Act, 1936	Nil	Nil
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4.—Housing Act, 1936—Part IV. :—

Inspections, reports, etc., regarding overcrowding	Nil	Nil
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Table 20 shows the very considerable increase during the two years under review in the number of houses inspected and also a corresponding increase in the number found not in all respects fit for human habitation. In regard to the latter figures, however, and their relation to the number of houses inspected, it should be noted that during the war period routine house to house inspection has had to be discontinued, and inspections are only made in response to complaints from tenants, or where unsatisfactory conditions are known to exist. The number of houses rendered fit in consequence of informal action increased from 596 in 1942 to 1,521 in 1943.

In regard to overcrowding, no special investigations were carried out during this period, and though it was known that serious cases of overcrowding did occur from time to time, it is considered that the incidence of overcrowding over the town as a whole was not increased to any marked extent.

SLUM CLEARANCE.—Owing to war conditions no houses were dealt with under Slum Clearance Schemes in either 1942 or 1943.

RENT AND MORTGAGE INTEREST RESTRICTIONS ACTS, 1920-1939.—During 1942, 9 applications were received from tenants for sanitary certificates under these Acts. Certificates were granted in each case. In 1943 10 applications were received and had certificates granted to them. During this year also, 1 certificate previously granted was rescinded on application of the owner, who had carried out all necessary work of repairs.

DISINFESTATION OF PREMISES AND HOUSEHOLD EFFECTS. During 1942, 4 Council houses were reported to be infested with bed bugs and were sprayed with a liquid insecticide. 12 other houses infested with bed bugs also came to the notice of the Sanitary Staff during the year. In these instances the tenants were advised in some cases as to the best methods of disinfection, whilst in others spraying was carried out by the Sanitary Department. In all cases the premises were kept under observation until free from infestation.

During 1943, 24 Council houses were reported to be infested. 22 of these were sprayed with insecticide, but 2 of the houses, together with the furniture and household goods, were subjected to fumigation by hydrocyanic acid gas. 31 other houses infested with bed bugs also came to notice. In these cases action was taken similar to that during 1942.

APPENDIX

Report by the Medical Officer of Health on proposals to examine school children by Miniature Radiography.

Submitted to the Central Children's Care Committee on Friday, 26th February, 1943).

In view of the suggestions recently made as to the desirability of introducing miniature radiography into the system of school medical inspection in St. Helens, I have been making enquiries into the possibilities and advisability of such a scheme. I have had the advantage of discussing the question with other School Medical Officers and also with one of the Medical Inspectors of the Board of Education, and would now place before the Committee a summary of the position as it appears to me. For purpose of explanation and discussion it will be convenient to present the report under the following headings :—

1. What is proposed and why.
2. Method of procedure.
3. A scheme outlined.
4. Interpretation of findings.
5. Post-school benefits.
6. Summary.

1. What is proposed and why.

Stated shortly, it is suggested that if all school children were examined by miniature radiography shortly before leaving school, there is a possibility that unsuspected lung or heart disease would be discovered, thus enabling the child in whom such discovery is made to receive any necessary treatment at an earlier period than would otherwise occur. If treatment were not necessary, it is suggested that the child could be kept under some form of supervision to prevent him or her entering an unsuitable occupation, or remain under general supervision as long as necessary.

To carry out such a programme, it is suggested that all school children of the 12-13 year old age group should have—by the special apparatus required—miniature X-ray film made of the chest. That film would then be examined by an expert, who would decide from it whether or not there was evidence suggesting

the need for further investigation. Further investigation would be carried out by clinical examination plus large scale X-ray if necessary.

2. Method of Procedure.

As is obvious this examination cannot be carried out at school. The children would have to attend some centre where the X-ray apparatus is installed, and those requiring further examination would have to attend the T.B. Dispensary or some other special clinic for the further investigation required. The stages in procedure would be :—

(a) The taking of the miniature X-ray film of all the children of the age group selected. There is only one apparatus in St. Helens at present capable of doing miniature radiography. That is the apparatus in the Surgery at the works of Messrs. Pilkington Bros., Ltd. During the last 2 years this apparatus has been used in the examination by this method of about 2,000 of Messrs. Pilkington Bros. employees. I am advised by Dr. Griffel, our Tuberculosis Officer, that at a cost of approximately £400 the apparatus at the T.B. Dispensary could also be adapted for this purpose. In the recent report of the Committee on Tuberculosis appointed by the Medical Research Council at the request of the Ministry of Health, however, certain very definite standards are laid down, to which all apparatus to be used for mass radiography should comply. Unfortunately, the apparatus at Messrs. Pilkington Bros. does not comply in all respects with these standards ; neither would the apparatus at the T.B. Dispensary, even after adaptation as suggested by Dr. Griffel. That brings us to an immediate difficulty, which is at present being investigated. The difficulty is that if the scheme is submitted to the Board of Education for their approval, they may not be prepared to approve a scheme which contemplates the use of apparatus not complying with the standards laid down by the Committee referred to.

In this connection I would draw the Committee's attention to two quotations from recent official publications. The first is from the report of the special Committee referred to, which says, "The Technical Sub-Committee wishes to emphasise that mass miniature radiography should not be lightly undertaken. A very high standard of quality of miniature radiography is necessary for correct interpretation, and the latter requires the highest radiological skill. The making-up of compromise apparatus cannot be too strongly condemned and would bring the method into disrepute." The second quotation is from a recent Ministry of Health Circular (No. 2741) and is that "The Minister considers it very desirable that in a highly technical question such as miniature radiography, the arrangements made should be of a standardised character, and that medical examination by this method should be carried out only with equipment of assured perfection."

The standards laid down by the Committee on Tuberculosis refer, however, to apparatus to be used for "mass radiography," i.e., taking miniature X-ray photographs of large numbers of persons in a short time. Any scheme adopted in St. Helens would deal with much fewer numbers, and it is suggested that the time factor, which is an important point in the "standard" set, would not apply.

The Board will also take into consideration the qualifications for this work of the medical personnel carrying it out. As the Committee are aware, certain approved types of apparatus are being distributed by the Ministry of Health to certain selected Counties and County Boroughs. For the operation of these sets, arrangements are being made by the Ministry of Health for training of the necessary staffs. What training is to be given I am not at present in a position to say. Personally, however, I would have every confidence in Dr. Morris Jones to take the films and in Dr. Griffel to read them. Dr. Morris Jones, as Medical Officer to Messrs. Pilkington Bros., has had a long and extensive experience in

taking X-ray films, and Dr. Griffel has been working on diagnostic radiology, both on the Continent and in this Country for the past 9-10 years, and on miniature radiography since 1939.

(b) Reading of the miniature films. This undoubtedly is of the greatest importance. It should be carried out only by an expert with special experience in chest work. He will examine each miniature film individually and pick out those that require further investigation.

(c) Further investigation. For the further investigation, the child should be referred to specialists in accordance with the investigation required, e.g., suspected Tuberculosis to the T.B. Officer, suspected Cardiac conditions to a Heart Specialist. The Specialist, by clinical and other examination or investigation accompanied, if considered desirable, by a full size X-ray examination, will finally decide the condition and advise as to any necessary treatment or supervision.

3. A Scheme Outlined.

In adopting such a scheme in St. Helens, it is suggested that the 12-13 year old age group be examined by this method, in addition to their usual medical examination at that age. It might also be extended to the older age groups of Secondary School children, though in this connection I am advised that the Special Committee on Tuberculosis are at present preparing a Report on the application of Miniature Radiography to Secondary School children. It might also be extended in time to scholars attending the Technical School.

For the actual taking of the miniature films there are two possibilities : (a) making arrangements with Messrs. Pilkington Bros. for the work to be done by Dr. Morris Jones at the Works Surgery, and (b) adapting the present X-ray apparatus at the T.B. Dispensary at a cost of approximately £400 and employing Dr. Morris Jones on a sessional basis to take the films. Additional staff (suggested at present as the equivalent of one whole time clerk) would also have to be appointed at the T.B. Dispensary for e.g., keeping of records, marshalling of scholars, developing of films, etc.

The number of school children to be examined in St. Helens in the age group suggested is approximately 1,600. As the average number of children X-rayed would be 60 per 2 hour session this would mean 25 to 30 sessions by Dr. Morris Jones.

The reading of the miniature films should, I suggest, be carried out by Dr. Griffel, and would mean the devotion of approximately 1 session of 1 hour per week for this purpose. From his reading, Dr. Griffel would decide which cases required further investigation.

Further investigation under the scheme is, of course, primarily to discover whether the child is actually suffering from Tuberculosis of the Lungs, or whether the abnormalities shown by the miniature X-ray are of any clinical significance from the point of view of Tuberculosis. Such cases should obviously be investigated by Dr. Griffel, and could be absorbed into the ordinary routine work of the Tuberculosis Dispensary. Other lung conditions would also be dealt with by Dr. Griffel.

It has been suggested, however, that this method of X-ray examination will show, in certain cases, abnormalities of the heart. For the further investigation of these, it appears to me essential that a heart specialist should be employed. Only a suitably qualified heart specialist is, in my opinion, competent to say definitely whether the abnormality, or suggested abnormality found in the X-ray film is of any clinical significance, and to advise regarding treatment and supervision where necessary.

The necessity for the engagement of a heart specialist for the further in-

vestigation of these cases, immediately suggests the desirability of establishing in St. Helens a "Heart Clinic," to which would be referred, not only suspected cases discovered through miniature radiography, but to which would be sent every case of known or suspected heart disease, and also cases of rheumatism. There is no doubt that such a clinic would be a most useful and beneficial addition to the School Medical Service. It is estimated that there are in St. Helens at present approximately 300 "heart" cases amongst children of school age. As a commencement it is suggested that one session per fortnight might be desirable to review all the present known cases and deal with new cases, but that one session per month might be sufficient later. I would suggest, therefore, that, apart from the adoption or otherwise of a scheme for miniature radiography, application be made now to the Board of Education for their approval to the establishment of a Heart Clinic.

4. Interpretation of Findings.

I have no knowledge at present of any records of any scheme of miniature radiography of school children. The nearest I can get are the results obtained recently by the examination of 2,000 employees of Messrs. Pilkington Bros. Amongst these employees were 476 aged 14-15 years. Of these, Drs. Jones and Griffel reported, as the result of viewing the miniature films, the following abnormalities or suspected abnormalities :—

Chest abnormalities or deformities	.....	.....	2	0.4%
Non-T.B. Pulmonary conditions	.....	.....	6	1.3%
Non-Pulmonary T.B. conditions	.....	.....	1	0.2%
Old Apical lesions and Pleurisy	.....	.....	11	2.3%
More extensive tubercular disease	.....	.....	2	0.4%
Cardio-vascular changes	.....	.....	33	6.9%
			—	—
		Total	55	11.5%
			—	—

Not all of these cases have, however, been fully investigated. It is impossible, therefore, to state in what proportion of them the findings of the miniature radiography are of any clinical significance. An attempt has been made to assess the clinical significance by comparing the findings of the miniature radiography with (a) school medical findings, (b) reports of the examination by the Factory Surgeon, and (c) reports of the routine medical examination by Messrs. Pilkington Brothers' Medical Officer. The results of such comparison cannot, however, be considered altogether satisfactory. Whilst 4 out of the 6 cases classed as "Non-T.B. pulmonary conditions" had been noted in the School Medical findings as suffering from chest affection—mainly bronchitis—only 2 out of the 11 classed as "old apical lesions" have had any chest condition noted during their school life, and in only 9 out of the 33 classed as "cardio-vascular changes" do any of the Medical Officers mention any abnormality of the heart or circulatory system. The "Non-pulmonary T.B. condition" was already known as a notified T.B. case, and one of the 2 cases classed as "more extensive disease" had, during school life, spent periods at both the Open Air School and Eccleston Hall Sanatorium, where he had been diagnosed as Non-T.B. To obtain a true estimate of the value of the X-ray findings, further investigation should follow the miniature X-ray. There is also the point that no information is available as to the results of the clinical examination of cases whose X-ray has been passed as showing no abnormality.

For an assessment of the value of miniature radiography as applied to school children, therefore, consideration has to be given to "probabilities." In this connection I would remind the Committee that all recent developments of

schemes for miniature radiography aim at providing a means of quick and early recognition of Tuberculosis. What is the likelihood of the occurrence of pulmonary tuberculosis in the age group 12-13 years? Medical opinion at present is in general agreement that this age group is low in the scale of susceptibility and all medical statistics go to show that school ages are amongst the lowest in providing cases of active pulmonary disease. Old Apical lesions may be found by X-ray, but it is at present an open question whether these are of any clinical significance.

In regard to cases classed as "cardio-vascular changes," greater difficulty arises in assessing the value of miniature radiography. Until a substantial number of those reported as showing on the X-ray film "cardio-vascular changes" have been thoroughly investigated clinically and have been followed up into later years of life, it is impossible to assess the true value of the X-ray findings. It has also to be remembered that not all clinically damaged hearts show an X-ray abnormality.

5. Post-School Benefits.

To me, as Medical Officer of Health, one of the most important questions which would arise from the adoption of a scheme for the miniature radiography of school children is the value of the findings as applied to the post-school life of the children. Taking the age group to be examined as the 12-13 year group, there is left only approximately 1 year at present for the supervision of the child under the School Medical Service. Should an earlier age be selected? It is very doubtful if there would be any material advantage.

What then is going to happen to these children after they leave school? Actual cases of Tuberculosis will, of course, remain on the books of the T.B. Dispensary and will thus be kept under supervision. To a lesser extent old healed cases and heart cases can also be supervised. But without a proper link up with Industry it is difficult to see how the majority of those found defective can be prevented from taking up employment which may be harmful to them. The records of both the Tuberculosis Service and the School Medical Service are confidential. Can they be used by the Juvenile Employment Bureau or be passed to the Factory Surgeon for his information when he examines a young person entering industry? I am very doubtful. Until there is a definite link up of the child's school medical history with his or her employment in the post-school years, and some more definite form of medical treatment and supervision than exists at present during these years, much of the benefit of the discoveries of the miniature radiography will be lost.

It has also to be remembered that, especially in relation to Tuberculosis, there is a danger that a negative finding in the course of miniature radiography at age 12-13 years—an age not specially susceptible to Tuberculosis—might lead to the development of a false sense of security during later years when the risk is much greater.

6. Summary.

In the preceding paragraphs I have endeavoured to assess the value of examining school children by miniature radiography prior to their leaving school and taking up employment. That miniature radiography can and will prove of the greatest value in the early diagnosis of Tuberculosis no one for a moment doubts. But would a sufficient number of cases be found in the 12-13 age group to justify the examination by this method of all children of that age? In my opinion the likelihood is small. Furthermore, under present arrangements, every case of doubtful or suspected chest disease discovered during school medical inspection is referred to the Tuberculosis Officer for investigation, and every school child contact of a notified case of Tuberculosis is kept under the continuous supervision of the School Medical Department.

That leaves, therefore, the question of the value of the reports regarding other defects, of which the most important are "old apical lesions" and "cardio-vascular changes." In the case of "old apical lesions" found, immediate treatment is seldom indicated, and the benefit to be derived must, in my opinion, depend on the ability to follow the case into later years. It is possible that some good would result from so doing. By constant supervision such a case might be prevented from taking up unsuitable employment, and should the old lesion at any time break down, appropriate steps could be taken to prevent, as far as possible, a serious extension of the disease. I have no knowledge of any organised scheme on these lines. It opens up the possibilities of doing some good work, but its success or otherwise would depend on close co-operation not only with the patient, but also with industry.

In regard to "cardio-vascular changes," it would appear from Dr. Griffel's report on his findings at Messrs. Pilkington Bros. that it is not uncommon to find in miniature X-ray films abnormalities in the heart and great blood vessels. No evidence has been produced, however, that such findings are all of clinical significance. Medical Officers examining, quite independently from the Miniature X-ray examination, only noted lesions of the heart or circulatory system in 9 out of the 33 cases classified by Dr. Griffel as abnormal. Here again, therefore, there may be a field for further investigation, though personally I must confess I am doubtful about the value of setting up a scheme for miniature radiography with discovery of heart diseases as one of its main objects. In my opinion far more good would be accomplished by the establishment of a "Heart Clinic," at which all cases of suspected heart conditions could be thoroughly investigated, and to which also cases of Rheumatism—that too frequent cause of heart disease in children—could be sent for supervision of the heart condition.

There is one aspect regarding the desirability of establishing a scheme of miniature radiography upon which I have not touched. That is, that whilst some Authorities will, shortly, with the assistance of the Ministry of Health, be able to introduce miniature radiography in their area, St. Helens will not have such facilities. The intention of the Ministry of Health Scheme is that in the areas concerned, mass miniature radiography be carried out amongst those specially susceptible to Tuberculosis, either on account of age or sex or the nature of the employment. It is also agreed that, especially in large factories, the initial examination of all employees by this method would be a considerable benefit in preventing the spread of infection. If, therefore, a scheme for miniature radiography for school children were introduced into St. Helens, it could with advantage be developed into a larger scheme to include, e.g., Nurses, Corporation employees and/or other selected groups of the population. It is expected, however, that any such development would have to comply with standards laid down by the Ministry of Health, both as regards type of equipment and method of operation of the Scheme.
